

# AM-NX9

## SERVICE MANUAL

Ver 1.1 2003.08

Canadian Model  
AEP Model  
UK Model  
E Model  
Australian Model



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|                                    |               |
|------------------------------------|---------------|
| Model Name Using Similar Mechanism | MZ-N710       |
| Mechanism Type                     | MT-MZN710-177 |
| Optical Pick-up Name               | LCX-5R        |

### SPECIFICATIONS

#### MD recorder

#### Audio playing system

MiniDisc digital audio system

#### Laser diode properties

Material: GaAlAs

Wavelength:  $\lambda = 790 \text{ nm}$

Emission duration: continuous

Laser output: less than  $44.6 \mu\text{W}$

(This output is the value measured at a distance of 200 mm from the objective lens surface on the optical pick-up block with 7 mm aperture.)

#### Recording and playback time (when using MDW-80)

Maximum 160 min. in monaural

Maximum 320 min. in LP4 stereo

#### Revolutions

Approx. 380 rpm to 2,700 rpm

#### Error correction

ACIRC (Advanced Cross Interleave Reed Solomon Code)

#### Sampling frequency

44.1 kHz

#### Coding

ATRAC (Adaptive TRansform Acoustic Coding)

ATRAC3 — LP2/LP4

#### Modulation system

EFM (Eight to Fourteen Modulation)

#### Number of channels

2 stereo channels

1 monaural channel

#### Frequency response

20 to 20,000 Hz  $\pm 3 \text{ dB}$

#### Outputs

⌚: stereo mini-jack, maximum output level

2 mW + 2 mW, load impedance 16  $\Omega$

(European models)

5 mW + 5 mW, load impedance 16  $\Omega$  (other models)

#### General

#### Power requirements

AC Power Adaptor connected at the DC IN 3V jack:

120 V AC, 60 Hz (Model for Canada)

230 V AC, 50/60 Hz (Model for continental Europe)

240 V AC, 50 Hz (Model for Australia)

230 V AC, 50 Hz (Model for U.K. and Hong Kong)

220 V AC, 60 Hz (Model for Korea)

100 – 240 V AC, 50/60 Hz (Other models)

The recorder:

One LR6 (size AA) alkaline battery (not supplied)

#### Recommended temperature for check-in/check-out

+5 °C (+41 °F) or higher

#### Battery operation time

The battery life may be shorter due to operating conditions and the temperature of the location.

Unit: approx. hours (JEITA<sup>2)</sup>)

| When    | SP stereo | LP2 stereo | LP4 stereo |
|---------|-----------|------------|------------|
| playing | 42        | 48         | 56         |

<sup>1)</sup> When using a new Sony LR6 (size AA) "STAMINA" alkaline dry battery (produced in Japan).

<sup>2)</sup> Measured in accordance with the JEITA (Japan Electronics and Information Technology Industries Association) standard.

#### Note

The battery life may be shorter than that specified, depending on the operating conditions, the temperature of the location, and varieties of a battery.

– Continued on next page –

## PORTABLE MINIDISC RECORDER

9-877-460-02

2003H05-1

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Sony Corporation

Personal Audio Company

Published by Sony Engineering Corporation



## Dimensions

Approx. 81.6 × 29.9 × 75.0 mm (w/h/d) (3<sup>1</sup>/<sub>4</sub> × 1<sup>3</sup>/<sub>16</sub> × 3 in.) without projections.

## Mass

Approx. 104 g (3.7 oz) the recorder only

## Supplied accessories

AC power adaptor (1)

Headphones/earphones (1)

Dedicated USB cable (1)

CD-ROM (SonicStage Ver. 1.5

and Net MD Simple Burner Ver. 1.2) (1)\*

\*Do not play a CD-ROM on an audio CD player.

Design and specifications are subject to change without notice.

Your dealer may not handle some of the above listed accessories. Please ask the dealer for detailed information about the accessories in your country.

## Notes

- For use in your house: Use the AC power adaptor. Do not use an AC power adaptor other than the recommended one since it may cause the recorder to malfunction.



**Polarity of the plug**

- There are regional differences in the supplied AC power adaptor specifications. For this reason, you should verify that the power requirements and plug configuration are appropriate for your area before you purchase the recorder.
- Connect the AC power adaptor to an easily accessible AC outlet. Should you notice an abnormality in the AC power adaptor, disconnect it from the AC outlet immediately.

## CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

## Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

## Flexible Circuit Board Repairing

- Keep the temperature of the soldering iron around 270 °C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

## UNLEADED SOLDER

Boards requiring use of unleaded solder are printed with the lead-free mark (LF) indicating the solder contains no lead.

(Caution: Some printed circuit boards may not come printed with the lead free mark due to their particular size)





## : LEAD FREE MARK


Unleaded solder has the following characteristics.

- Unleaded solder melts at a temperature about 40 °C higher than ordinary solder.  
Ordinary soldering irons can be used but the iron tip has to be applied to the solder joint for a slightly longer time.  
Soldering irons using a temperature regulator should be set to about 350 °C .  
Caution: The printed pattern (copper foil) may peel away if the heated tip is applied for too long, so be careful!
- Strong viscosity  
Unleaded solder is more viscous (sticky, less prone to flow) than ordinary solder so use caution not to let solder bridges occur such as on IC pins, etc.
- Usable with ordinary solder  
It is best to use only unleaded solder but unleaded solder may also be added to ordinary solder.

## SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK  OR DOTTED LINE WITH MARK  ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

## ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE  SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

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## SECTION 1

### SERVICING NOTES

#### NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic break-down because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.

During repair, pay attention to electrostatic break-down and also use the procedure in the printed matter which is included in the repair parts.

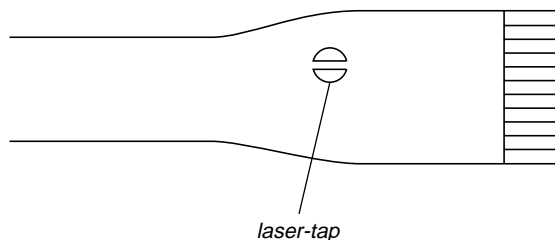
The flexible board is easily damaged and should be handled with care.

#### NOTES ON LASER DIODE EMISSION CHECK

Never look into the laser diode emission from right above when checking it for adjustment. It is feared that you will lose your sight.

#### NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK (LCX-5R)

The laser diode in the optical pick-up block may suffer electrostatic break-down easily. When handling it, perform soldering bridge to the laser-tap on the flexible board. Also perform measures against electrostatic break-down sufficiently before the operation. The flexible board is easily damaged and should be handled with care.



**OPTICAL PICK-UP FLEXIBLE BOARD**

- In performing the repair with the power supplied to the set, removing the MAIN board causes the set to be disabled. In such a case, make a solder bridge to short SL802 (OPEN/CLOSE) on the MAIN board in advance.

#### – MAIN Board (Conductor Side) –



- The shipment data will be cleared when the NV is reset. Therefore, change the NV adjusted values following the Change of NV Adjusted Values immediately after the NV was reset. (See page 18)
- This set requires the patch data in the nonvolatile memory (IC802) to be rewritten using the application, when the MAIN board or nonvolatile memory (IC852) was replaced. (See page 28)
- Replacement of SN761058AZQLR (IC501) and CXD2680-207GA (IC801) used in this set requires a special tool.

#### System requirements

The hardware and software requirements for the Net MD Simple Burner software are as follows.

|                  |   |
|------------------|---|
| Computer         | IBM PC/AT or Compatible <ul style="list-style-type: none"> <li>• CPU: Pentium II 400 MHz or higher (Pentium III 450 MHz or higher is recommended.)</li> <li>• Hard disk drive space: 120 MB or more (Requires additional drive space depending on the Windows version or audio file sizes.)</li> <li>• RAM: 64 MB or more (128 MB or more is recommended)</li> </ul> Others <ul style="list-style-type: none"> <li>• CD-ROM drive (capable of digital playback by WDM)</li> <li>• Sound Board</li> <li>• USB port (supports USB (conventionally called USB 1.1))</li> </ul> |
| Operating System | Factory installed:<br>Windows XP Home Edition/Windows XP Professional/Windows Millennium Edition/Windows 2000 Professional/Windows 98 Second Edition  |
| Display          | High Color (16bit) or higher, 800 × 480 dots or better (800 × 600 dots or better is recommended)  |
| Others           | <ul style="list-style-type: none"> <li>• Internet access: For CDDb service</li> </ul>   |

#### This software is not supported by the following environments:

- Macintosh
- Windows XP versions other than Home Edition or Professional
- Windows 2000 versions other than Professional
- Windows 98 versions other than Second Edition
- Windows NT
- Windows 95
- Personally constructed PCs or operating systems
- An environment that is an upgrade of the original manufacturer-installed operating system
- Multi-boot environment
- Multi-monitor environment

#### Notes

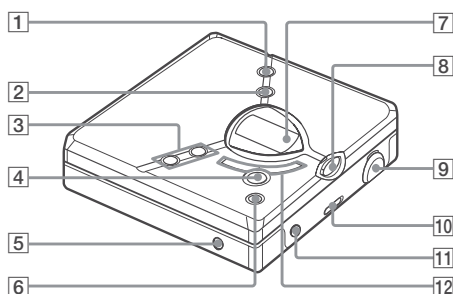
- We do not ensure trouble-free operation on all computers that satisfy the system requirements.
- We do not ensure trouble-free operation of the system suspend, sleep, or hibernation function on all computers.

## SECTION 2 GENERAL

This section is extracted from instruction manual.

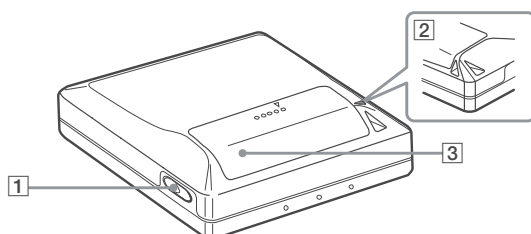
### Looking at the controls

#### Front of the recorder



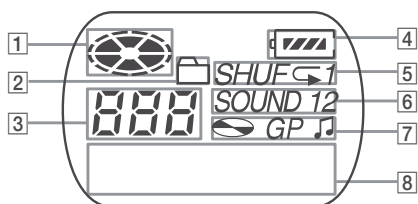
- |  |  |
|--|--|
| <b>1</b> GROUP button  | <b>6</b> ■STOP/CANCEL (stop/cancel) button   |
| <b>2</b> MENU button   | <b>7</b> Display window  |
| <b>3</b> VOL +* and – buttons<br>* The VOL + button has a tactile dot.                     | <b>8</b> DOWNLOAD button   |
| <b>4</b> ►  /ENTER (play/pause/enter) button*<br>* The ►  /ENTER button has a tactile dot. | <b>9</b> USB jack<br>When connecting to your computer, connect the dedicated USB cable to this jack. |
| <b>5</b> DC IN 3V jack   | <b>10</b> HOLD switch  |
|  | <b>11</b> 🎧 (headphones/earphones) jack  |
|  | <b>12</b> ◀◀ and ▶▶ (skip/search) buttons  |

#### Back of the recorder



- |  |                                  |
|--|----------------------------------|
| <b>1</b> OPEN button   | <b>3</b> Battery compartment lid |
| <b>2</b> Hand strap hole<br>Use the hole to attach your own strap. |                                  |

#### The display window of the recorder



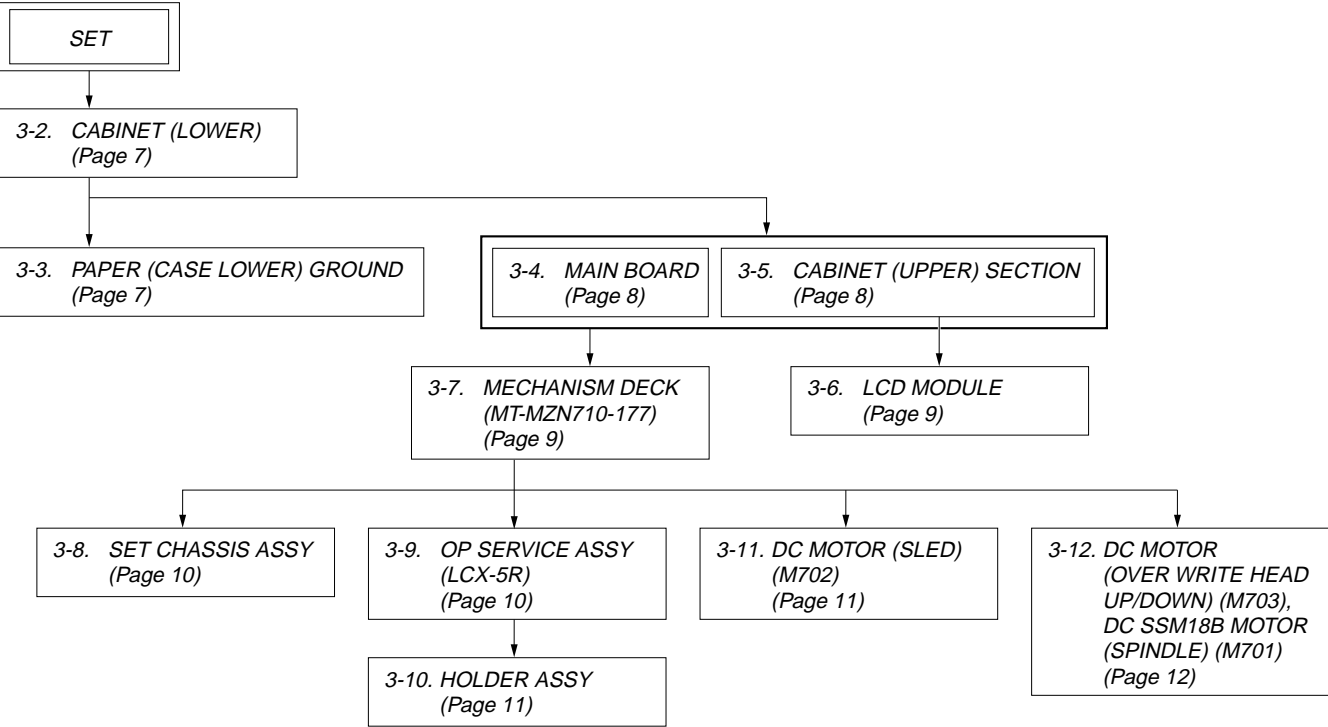
- |   |  |
|---|--|
| <b>1</b> Disc indication  | <b>5</b> Play mode indication<br>Shows play mode of the MD.                            |
| <b>2</b> Group mode indication<br>Lights up when group mode is on.        | <b>6</b> SOUND indication  |
| <b>3</b> Track number display   | <b>7</b> Disc, group, track indication   |
| <b>4</b> Battery level indication<br>Shows approximate battery condition. | <b>8</b> Character information display<br>Displays the track names, elapsed time, etc. |

SECTION 3  
DISASSEMBLY

• This set can be disassembled in the order shown below.

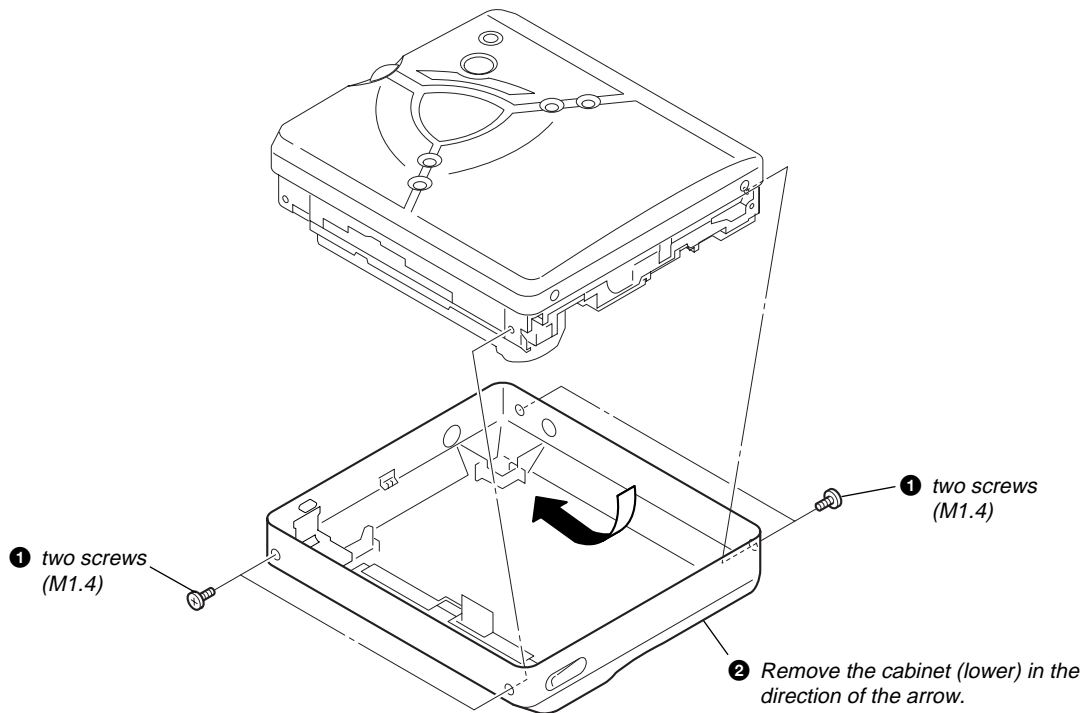
3-1. DISASSEMBLY FLOW

**Note 1:** The process described in [icon] can be performed in any order.  
**Note 2:** Without completing the process described in [icon], the next process can not be performed.

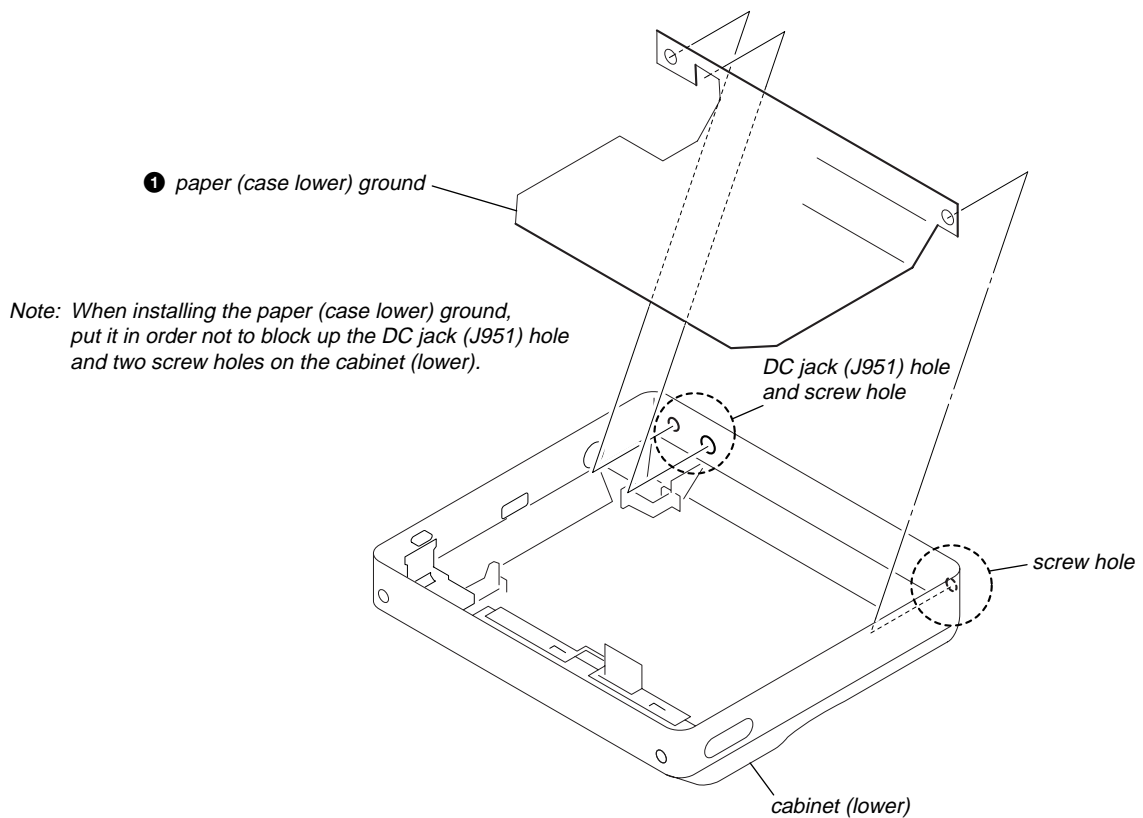


**Note:** Follow the disassembly procedure in the numerical order given.

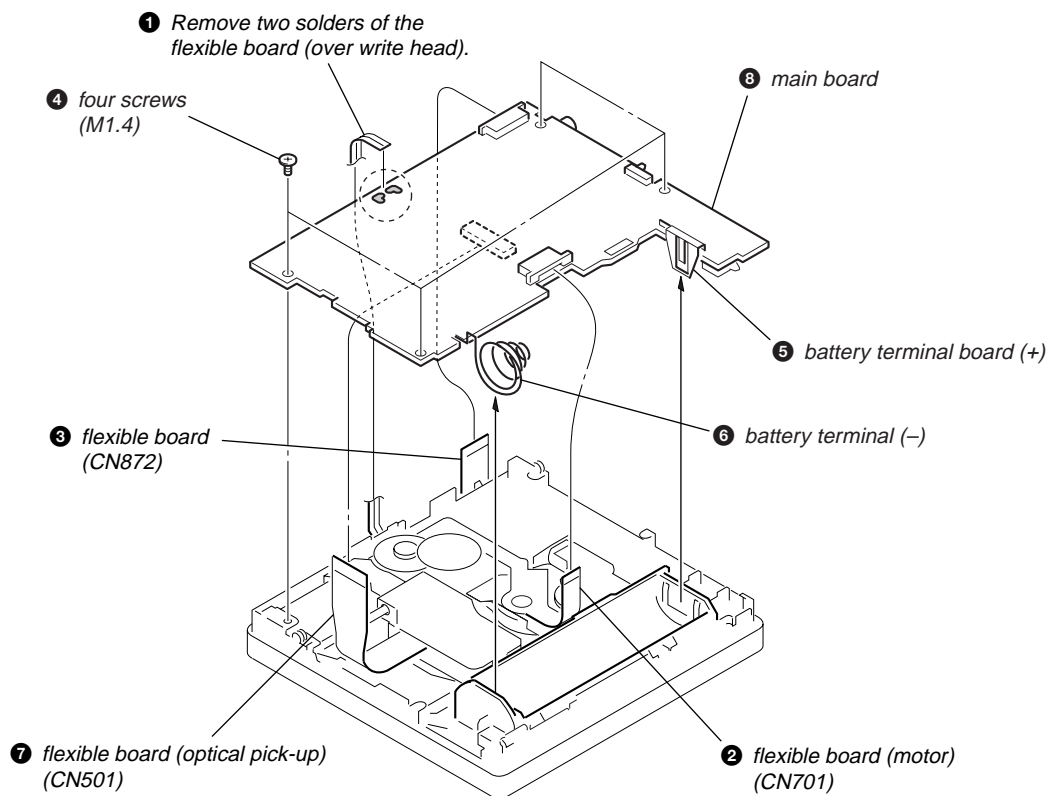
### 3-2. CABINET (LOWER)



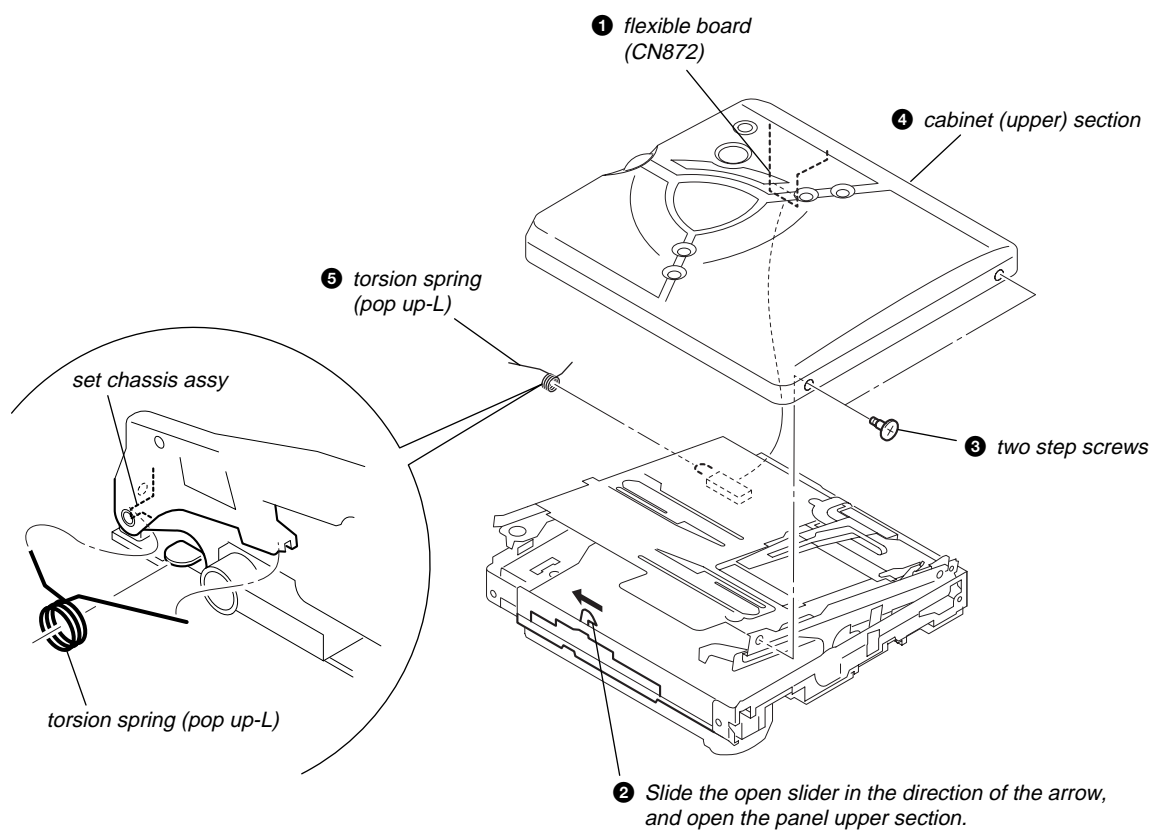
### 3-3. PAPER (CASE LOWER) GROUND



## 3-4. MAIN BOARD

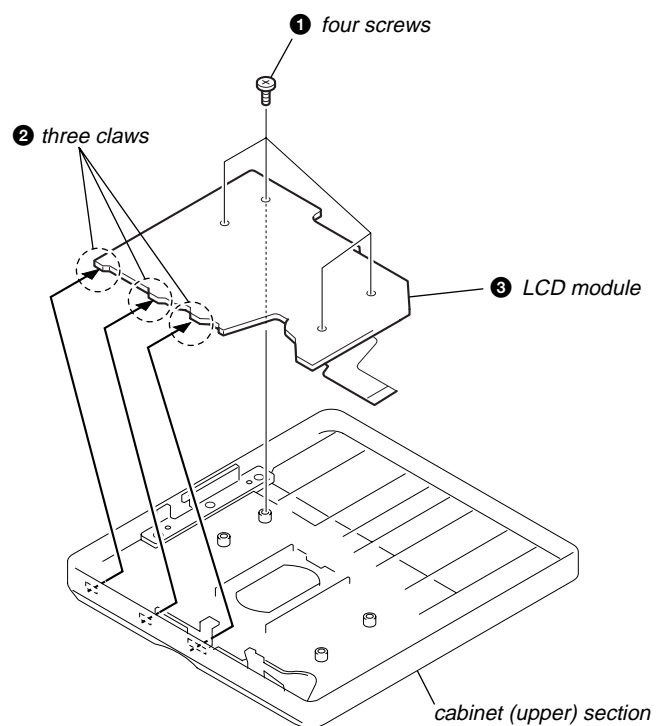


## 3-5. CABINET (UPPER) SECTION

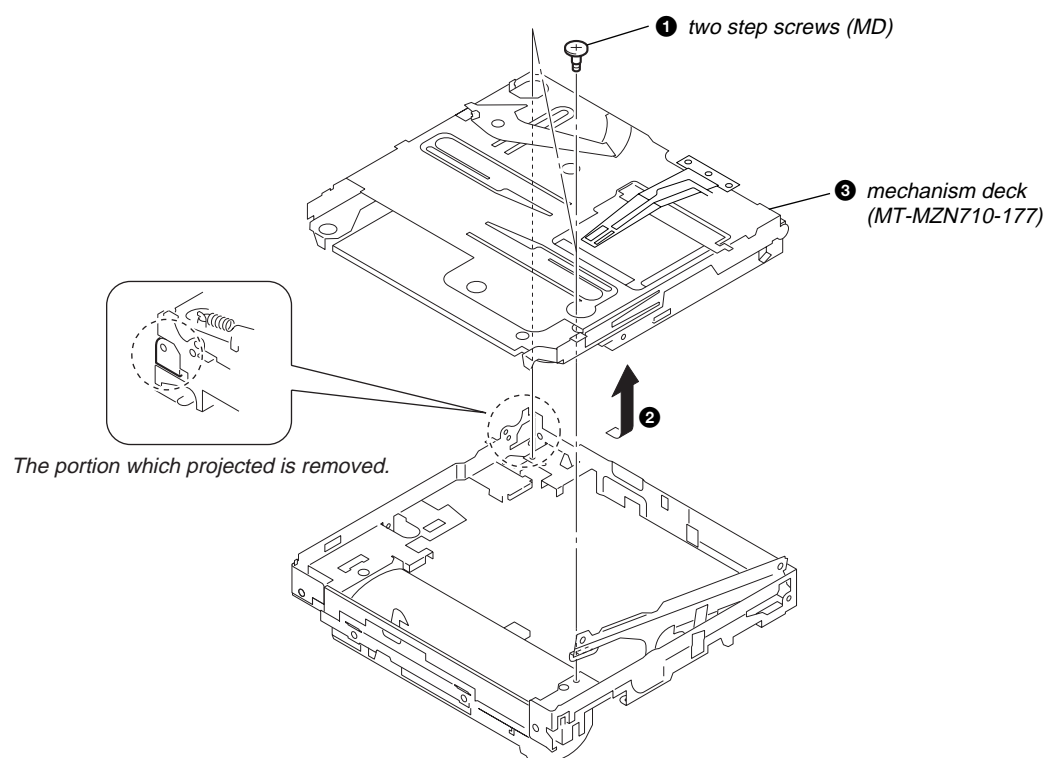




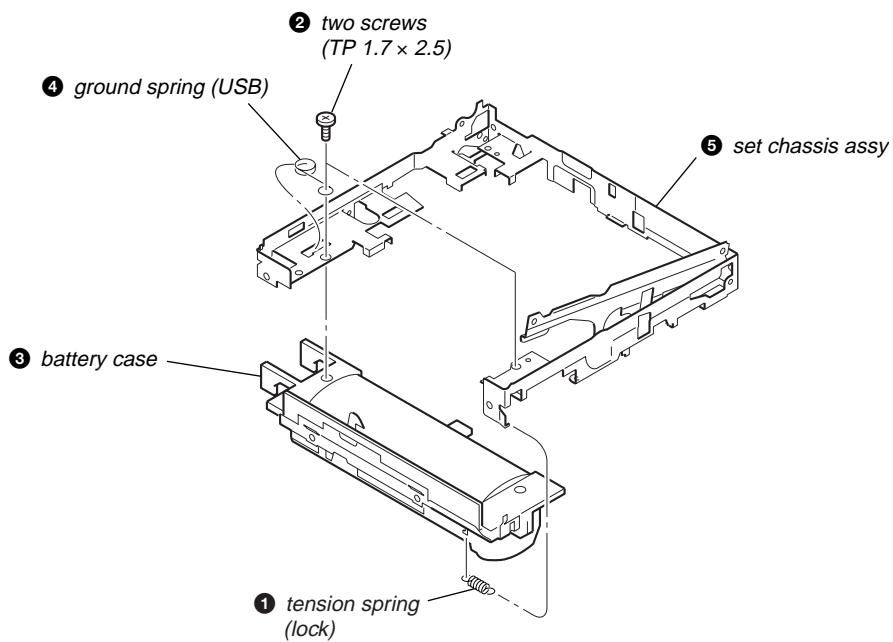
### 3-6. LCD MODULE



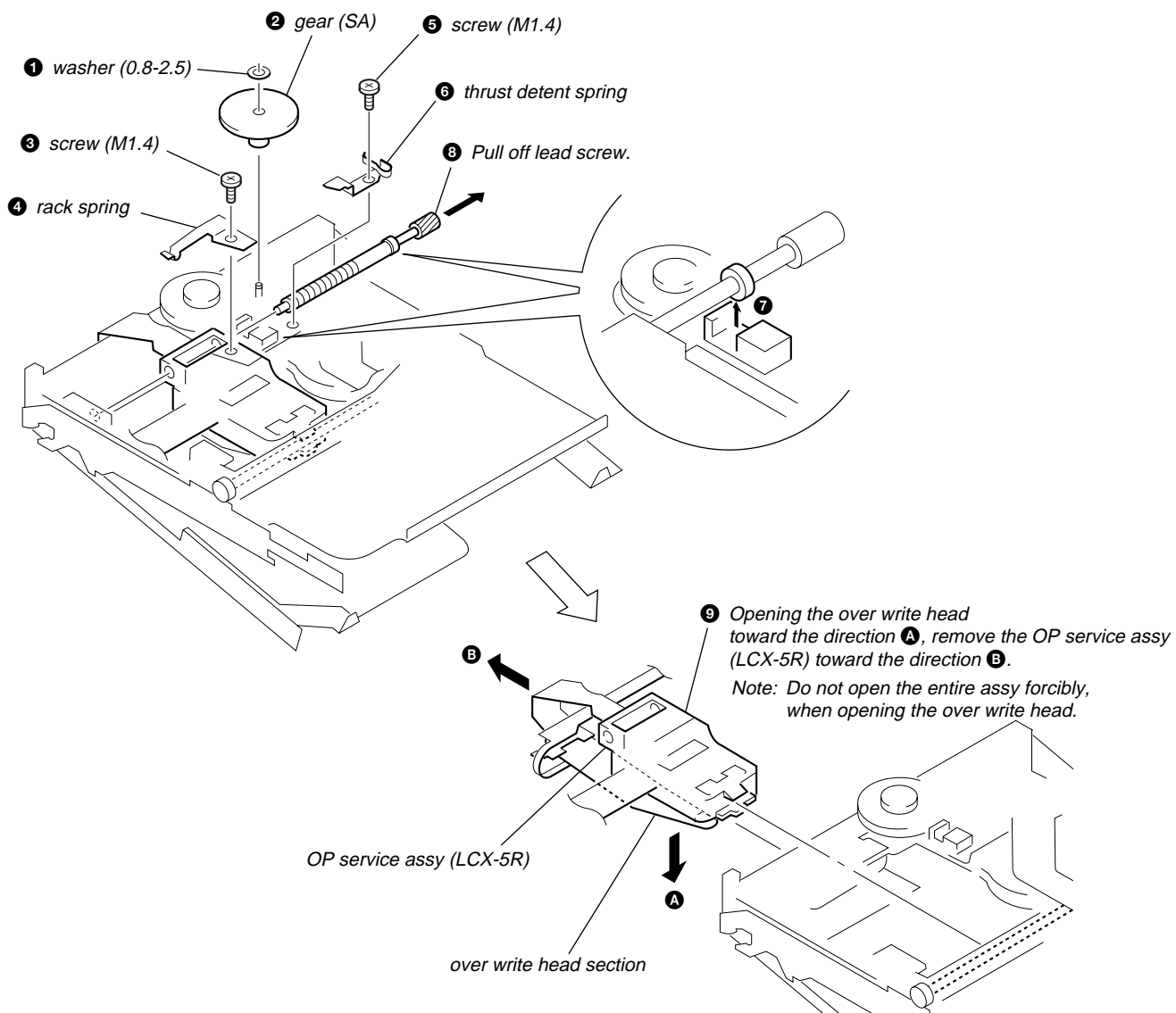
### 3-7. MECHANISM DECK (MT-MZN710-177)



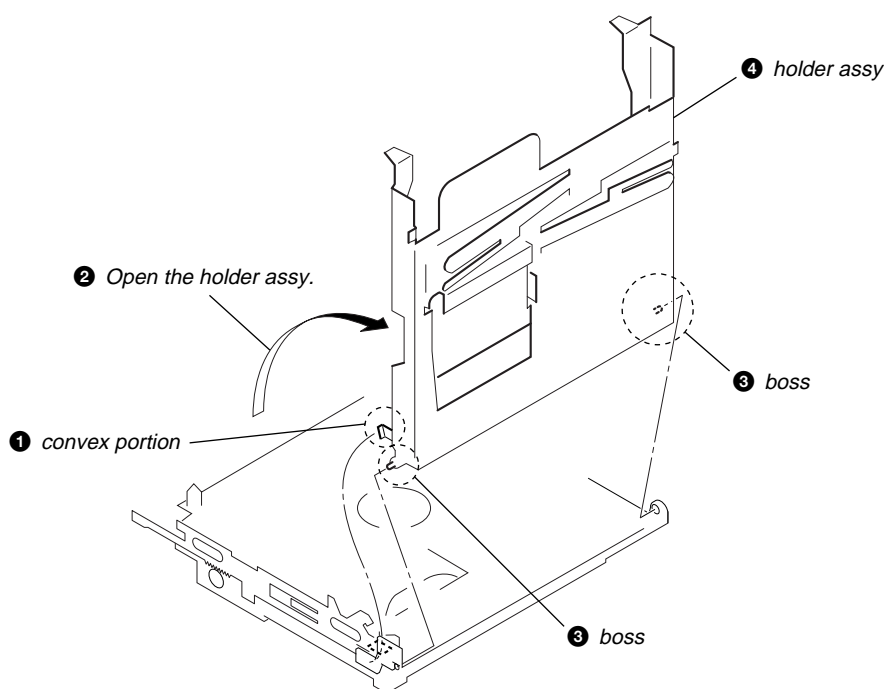
## 3-8. SET CHASSIS ASSY



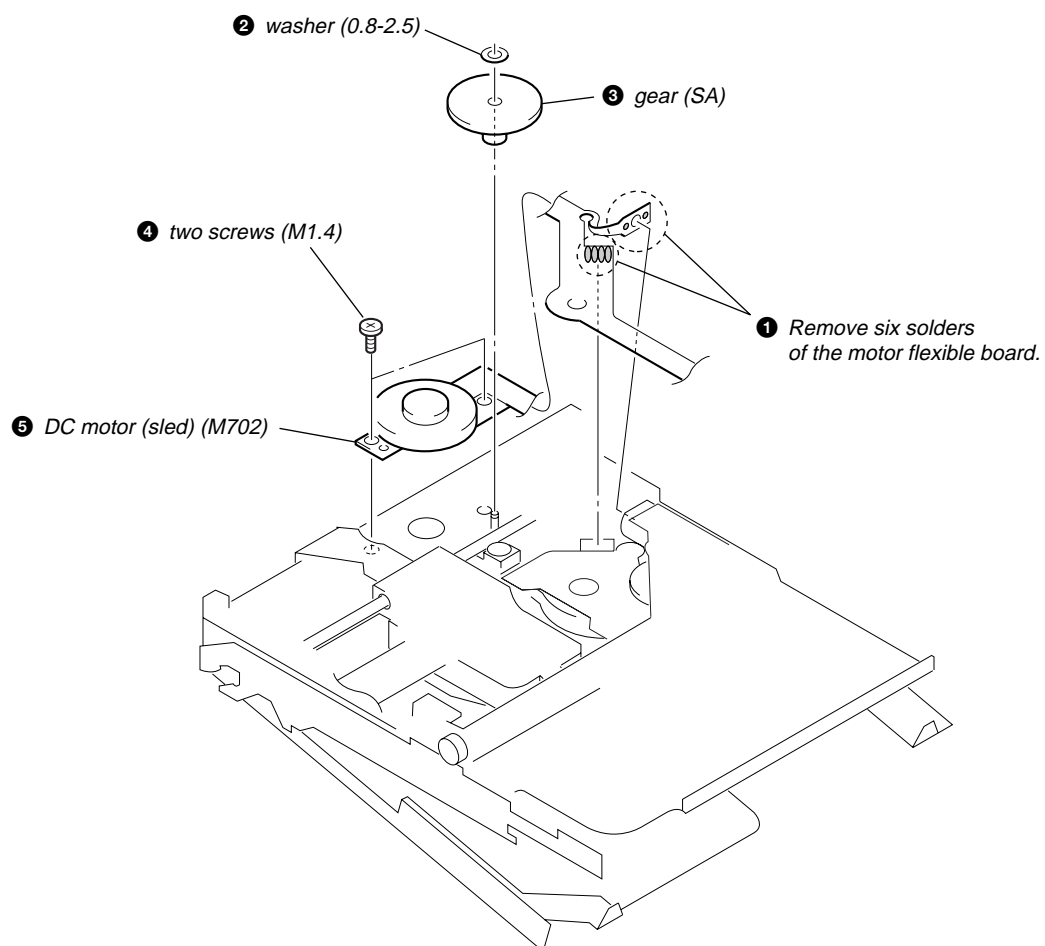
## 3-9. OP SERVICE ASSY (LCX-5R)



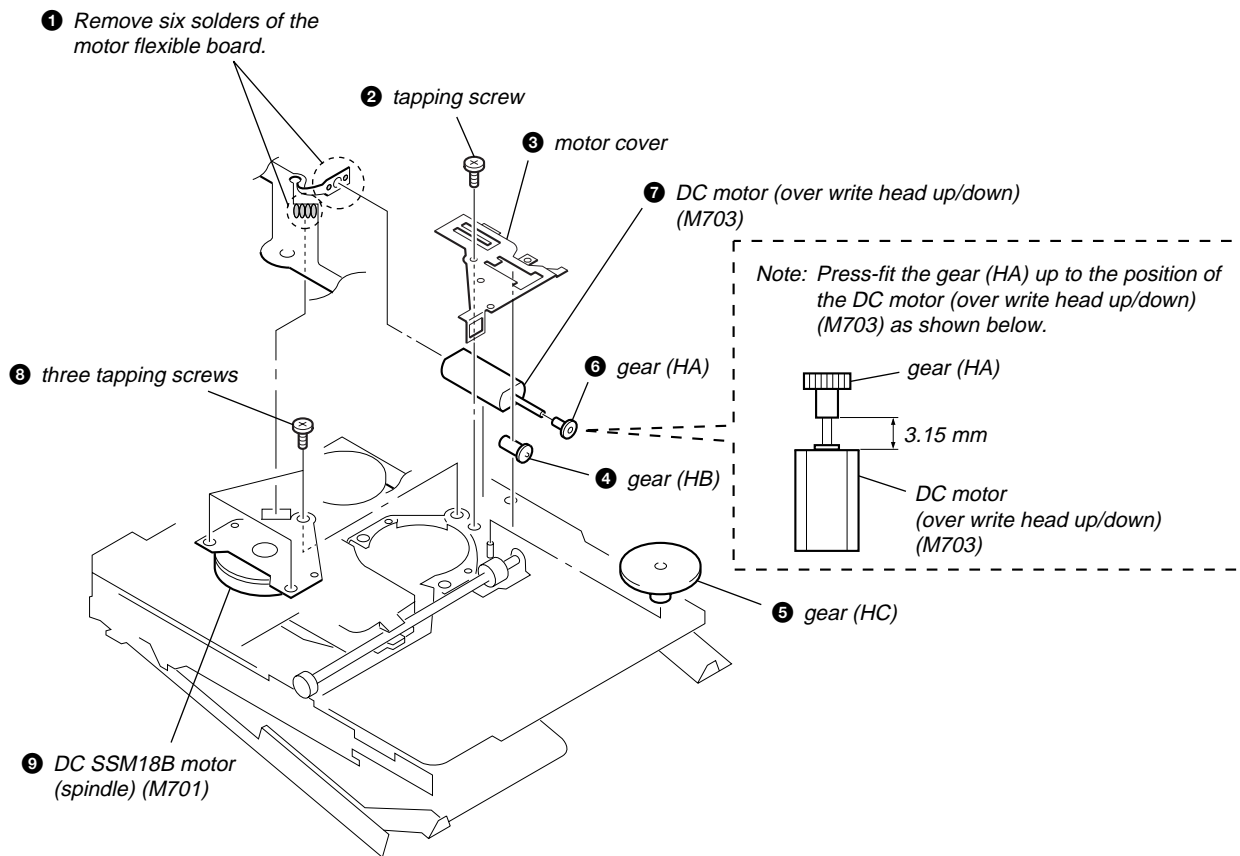
### 3-10. HOLDER ASSY



### 3-11. DC MOTOR (SLED) (M702)



## 3-12. DC MOTOR (OVER WRITE HEAD UP/DOWN) (M703), DC SSM18B MOTOR (SPINDLE) (M701)



## SECTION 4 TEST MODE

### Outline

- This set provides the Overall adjustment mode that allows CD and MO discs to be automatically adjusted when in the test mode. In this overall adjustment mode, the disc is discriminated between CD and MO, and each adjustment is automatically executed in order. If a fault is found, the system displays its location. Also, the manual mode allows each individual adjustment to be automatically adjusted.
- Operation in the test mode is performed with the set.

### Setting Method of Test Mode

Short SL803 (TEST) on the MAIN board with a solder bridge (connect pin ② of IC801 to the ground). Then, turn on the power.

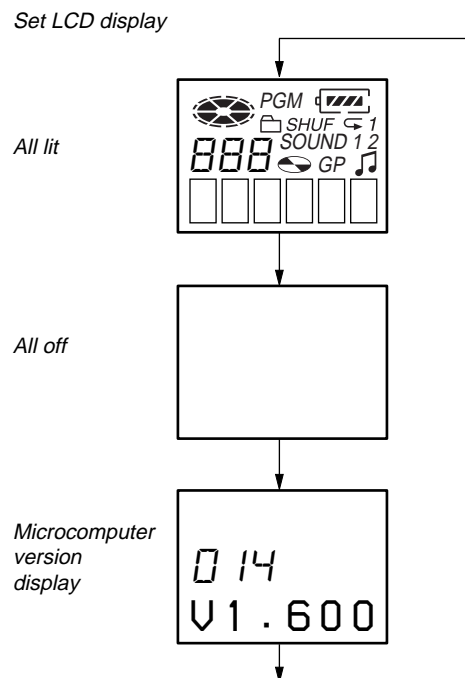
#### – MAIN Board (Conductor Side) –



**Note:** If electrical adjustment (CD and MO overall adjustment) has not been finished completely, "ERROR" is displayed on LCD of the set.

### Operation in Setting the Test Mode

- When the test mode becomes active, first the display check mode is selected.
- Other mode can be selected from the display check mode.
- When the test mode is set, the LCD repeats the following display.



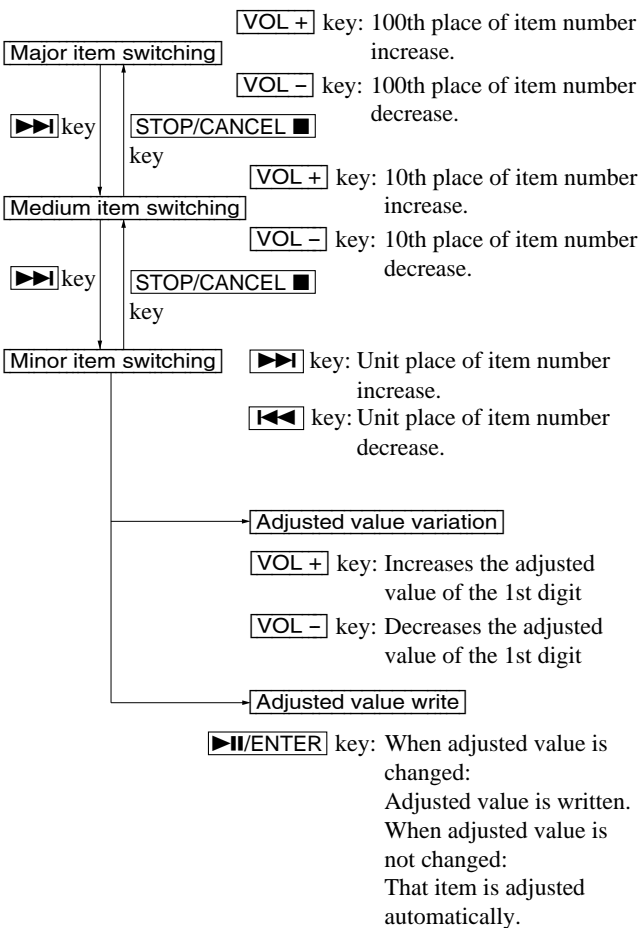
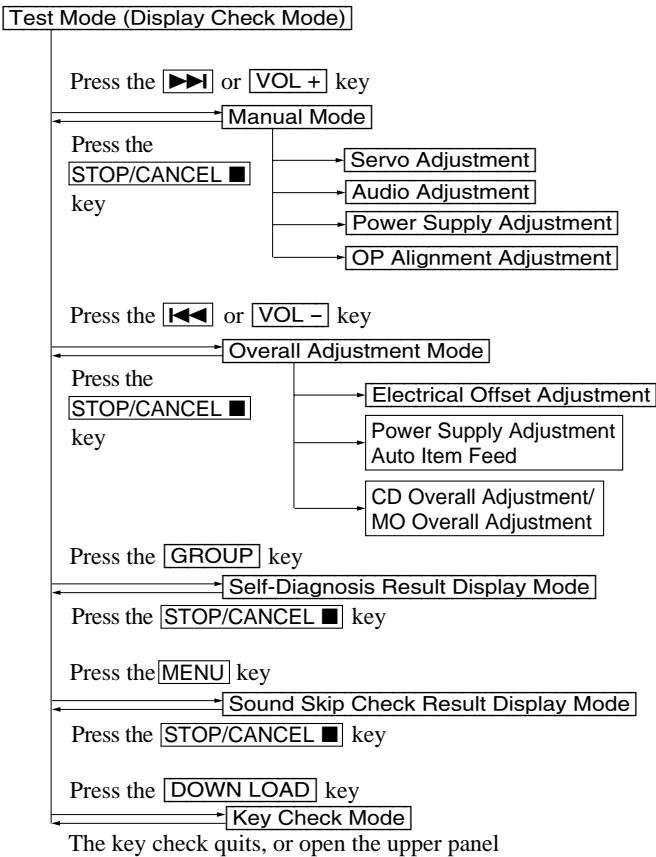
- When the **▶II/ENTER** key is pressed and held down, the display at that time is held so that display can be checked.

### Releasing the Test Mode

Turn off the power and open the solder bridge on SL803 (TEST) on the MAIN board.

**Note:** Remove the solders completely. Remaining could be shorted with the chassis, etc.

Configuration of Test Mode

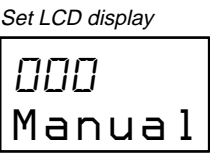


Manual Mode

Mode to adjust or check the operation of the set by function. Normally, the adjustment in this mode is not executed. However, the Manual mode is used to clear the memory, power supply adjustment, and laser power check before performing automatic adjustments in the Overall Adjustment mode.

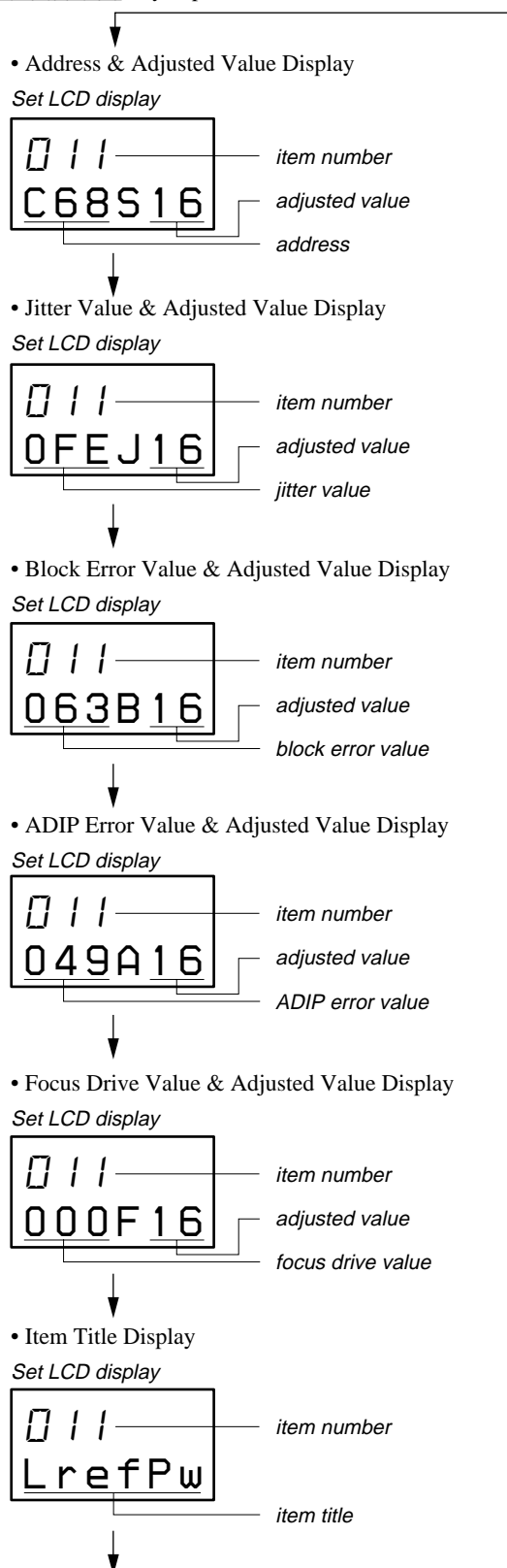
Transition Method in Manual Mode

- 1. Set the test mode (see page 13).
- 2. Press the **▶▶** to activate the manual mode where the LCD display as shown below.



- 3. During each test, the optical pick-up moves outward or inward while the **▶▶** or **◀◀** key is pressed for several seconds respectively.
- 4. Each test item is assigned with a 3-digit item number; 100th place is a major item, 10th place is a medium item, and unit place is a minor item. The values adjusted in the test mode are written to the non-volatile memory (for the items where adjustment was made).

5. The display changes as shown below each time the **DOWN LOAD** key is pressed.



However in the power mode (item number 700's), only the item is displayed.

6. Quit the manual mode, and press the **STOP/CANCEL** key to return to the test mode (display check mode).

## Overall Adjustment Mode

Mode to adjust the servo automatically in all items.

Normally, automatic adjustment is executed in this mode at the repair.

For further information, refer to "SECTION 5 ELECTRICAL ADJUSTMENTS" (see page 18).

## Self-Diagnosis Result Display Mode

This set uses the self-diagnostic function system in which if an error occurred during the recording or playing, the mechanism control block and the power supply control block in the micro-computer detect it and record its cause as history in the nonvolatile memory.

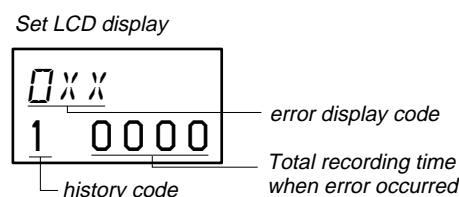
By checking this history in the test mode, you can analyze a fault and determine its location.

Total recording time is recorded as a guideline of how long the optical pick-up has been used, and by comparing it with the total recording time at the time when an error occurred in the self-diagnosis result display mode, you can determine when the error occurred.

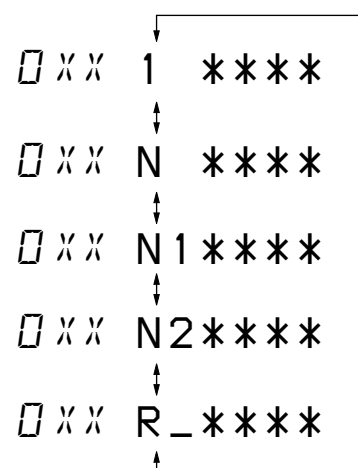
Clear both self-diagnosis history data and total recording time, if the optical pick-up was replaced.

### • Self-Diagnosis Result Display Mode Setting Method

1. Set the test mode (see page 13).
2. In the display check mode, press the **GROUP** key activates the self-diagnosis result display mode where the LCD display as shown below.



3. Then, each time the **▶▶** key is pressed, LCD display descends by one as shown below. Also, the LCD display ascends by one when the **◀◀** key is pressed.



XX : Error code  
\*\*\*\* : Total recording time

If the **GROUP** key is pressed with this display, the LCD switches to the simple display mode.

4. Quit the self-diagnosis result display mode, and press the **STOP/CANCEL** key to return to the test mode (display check mode).

## • Description of Error Indication Codes

| Problem                   | Indication code | Meaning of code                             | Simple display | Description                                 |
|---------------------------|-----------------|---|----------------|---|
| No error                  | 00              | No error                                    | ---            | No error                                    |
| Servo system error        | 01              | Illegal access target address was specified | Adrs           | Attempt to access an abnormal address       |
|                           | 02              | High temperature                            | Temp           | High temperature detected                   |
|                           | 03              | Focus error                                 | Fcus           | Disordered focus or can not read an address |
|                           | 04              | Spindle error                               | Spdl           | Abnormal rotation of disc                   |
| TOC error                 | 11              | TOC error                                   | TOC            | Faulty TOC contents                         |
|                           | 12              | Data reading error                          | Data           | Data could not be read at SYNC              |
|                           | 13              | TOC address error                           | Tadr           | TOC address data error                      |
| Power supply system error | 22              | Low battery                                 | LBat           | Momentary interruption detected             |
| Offset system error       | 31              | Offset error                                | Ofst           | Offset error                                |
|                           | 32              | Focus error ABCD offset error               | ABCD           | Focus error ABCD offset error               |
|                           | 33              | Tracking error Offset error                 | TE             | Tracking error Offset error                 |
|                           | 34              | X1 tracking error Offset error              | X1TE           | X1 tracking error Offset error              |
|                           | 35              | MD DATA 2 disc error                        | MD2            | MD DATA 2 disc error                        |
|                           | 36              | Mirror error                                | Mirr           | Mirror retry over                           |

## • Description of Indication History

| History code number | Description                 |
|---------------------|-----------------------------|
| 1                   | The first error             |
| N                   | The last error              |
| N1                  | One error before the last.  |
| N2                  | Two errors before the last. |
| R_                  | Total recording time        |

## Reset the Error Display Code

After servicing, reset the error display code.

### • Setting Method of Reset the Error Display Code

1. Set the test mode (see page 13).
2. Press the **[GROUP]** key activates the self-diagnosis result display mode.
3. To reset the error display code, press the **[▶II/ENTER]** key (twice) when the code is displayed (except “R\_\*\*\*”).  
(All the data on the 1, N, N1, and N2 will be reset)



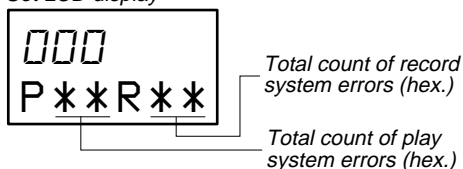
### Sound Skip Check Result Display Mode

This set can display the count of errors that occurred during the recording/playing for checking.

#### • Setting Method of Sound Skip Check Result Display Mode

1. Set the test mode (see page 13).
2. Press the **[MENU]** key and the playing or recording sound skip result display mode becomes active respectively where the LCD displays the following.

Set LCD display



3. When the **[MENU]** key is pressed, total error count is displayed on the LCD, and each time the **[▶▶]** key is pressed, the display item moves down by one as shown below. Also, if the **[◀◀]** key is pressed, the display item moves up by one.

Playing sound skip result display



P\*\*R\*\* : Total play/record errors (hex.)

\*\* : Counter of sound skip check each item (hex.)

##### : 6-digit address where sound was skipped last (hex.)

#### • Cause of Sound Skip Error

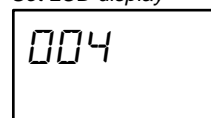
|      | Cause of error | Description of error         |
|------|----------------|------------------------------|
| Play | EIB            | Sound error correction error |
|      | Stat           | Decoder status error         |
|      | Adrs           | Address access error         |
|      | BEmp           | Buffer is empty              |

4. To quit the sound skip check result display mode and to return to the test mode (display check mode), press the **[STOP/CANCEL ■]** key.

#### • Setting Method of Key Check Mode

1. Set the test mode (see page 13).
2. Press the **[DOWN LOAD]** key activates the key check mode.

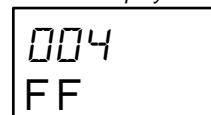
Set LCD display



3. When each key on the set is pressed, its name is displayed on the set LCD. (Operated position is displayed for 4 seconds after the slide switch is operated.

Example1: When the **[▶▶]** key on the set is pressed:

Set LCD display



4. When all keys were checked or if the upper panel is opened, the key check mode quits and the test mode (display check mode) comes back.

## SECTION 5

### ELECTRICAL ADJUSTMENTS

#### Outline

- In this set, automatic adjustment of CD and MO can be performed by entering the test mode. However, before starting automatic adjustment, the memory clear, power supply adjustment and laser power check must be performed in the manual mode.

#### Precautions for Adjustment

- Adjustment must be done in the test mode only.  
After adjusting, release the test mode.
- Use the following tools and measuring instruments.
  - Test CD disc TDYS-1  
(Part No. : 4-963-646-01)
  - SONY MO disc available on the market
  - Digital voltmeter
  - Laser power meter LPM-8001  
(Part No. : J-2501-046-A)
  - Thermometer (using the Temperature Correction)
  - Personal computer
  - USB cable
- Unless specified otherwise, supply DC 1.5V from battery terminals.
- Switch position  
HOLD switch ..... ON

#### Adjustment Sequence

- NV Reset (item number: 021)  
(EEPROM clear)
  - Temperature Correction (item number: 015)
  - Power Supply Manual Adjustment
  - Laser Power Check
  - CD Overall Adjustment (item number: 031)
  - MO Overall Adjustment (item number: 034)
  - RESUME Clear (item number 043)
  - Rewriting the Patch Data  
(at replacement of the MAIN board)
  - Rewriting the NV values
- { Manual Mode  
 { Overall Mode  
 { Manual Mode

#### NV Reset

##### • Setting Method of NV Reset

- Select the manual mode of the test mode, and set item number 021 NV Reset (see page 14).

Set LCD display

021  
ResNV

- Press the ▶||/ENTER key.

Set LCD display

021  
ResOK?

- Press the ▶||/ENTER key once more.

Set LCD display

021  
Res\*\*\*

↓ NV reset (after several seconds)

021  
Reset!

- Press the STOP/CANCEL■ key to quit the manual mode, and return to the test mode (display check mode).

#### Temperature Correction

##### • Adjustment Method of Temperature Correction

- Select the manual mode of the test mode, and set the item number 015 (see page 14).

Set LCD display

015  
SetTmp

- Measure the ambient temperature.
- Adjust with VOL + or VOL - key so that the adjusted value (hexadecimal value) becomes the ambient temperature.  
(Initial value : 19h = 25°C, Adjusting range : 80h to 7fh  
(-128°C to +127°C))
- Press the ▶||/ENTER key to write the adjusted value.

#### Power Supply Manual Adjustment

##### • Adjustment sequence

Adjustment must be done with the following steps.

- VC1\_LOW (PB) adjustment (item number : 741)
- VC1\_HIGH (REC) adjustment (item number : 742)
- VC2\_LOW adjustment (item number : 743)
- VC2\_HIGH adjustment (item number : 744)
- REG1 adjustment (item number : 745)
- REG3\_LOW1 adjustment (item number : 747)
- REG3\_LOW2 adjustment (item number : 748)
- REG3\_HIGH adjustment (item number : 749)
- VREC\_LOW (X2 speed) adjustment (item number : 751)
- VREC\_MIDDLE (X4 speed) adjustment (item number : 752)
- VREC\_HIGH (HEAD MOTOR) adjustment (item number : 753)

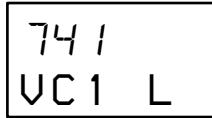
##### • Setting Method of Power Supply Manual Adjustment

- Make sure that the power supply voltage is 1.5V.
- Select the manual mode of the test mode (see page 14).
- Set item number.

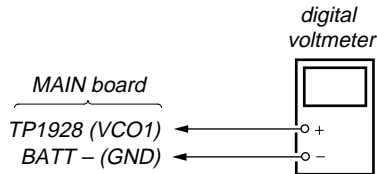
**Note:** Power supply adjustment auto item feed mode (page 23) is available to perform the temperature Correction and Power Supply Adjustment without entering the manual mode.

• **Adjustment Method of VC1\_LOW (PB)**  
(item number: 741)

Set LCD display



1. Connect a digital voltmeter to the TP1928 (VCO1) on the MAIN board, and adjust **[VOL +]** key (voltage up) or **[VOL -]** key (voltage down) so that the voltage becomes  $2.35 \pm 0.05V$ .

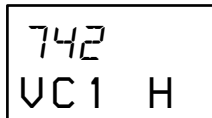


2. Press the **[▶II/ENTER]** key to write the adjusted value.

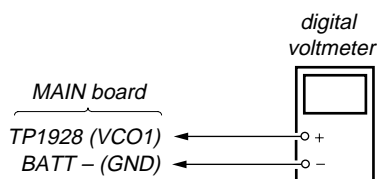
**Adjustment and Connection Location:** MAIN board  
(see page 22)

• **Adjustment Method of VC1\_HIGH (REC)**  
(item number: 742)

Set LCD display



1. Connect a digital voltmeter to the TP1928 (VCO1) on the MAIN board, and adjust **[VOL +]** key (voltage up) or **[VOL -]** key (voltage down) so that the voltage becomes  $2.50 \pm 0.05V$ .

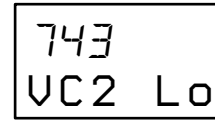


2. Press the **[▶II/ENTER]** key to write the adjusted value.

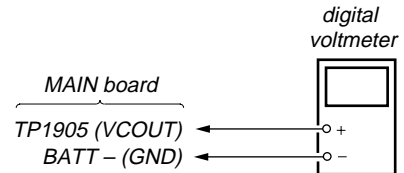
**Adjustment and Connection Location:** MAIN board  
(see page 22)

• **Adjustment Method of VC2\_LOW**  
(item number: 743)

Set LCD display



1. Connect a digital voltmeter to the TP1905 (VCOUT) on the MAIN board, and adjust **[VOL +]** key (voltage up) or **[VOL -]** key (voltage down) so that the voltage becomes  $2.30 \pm 0.01V$ .

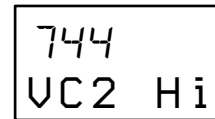


2. Press the **[▶II/ENTER]** key to write the adjusted value.

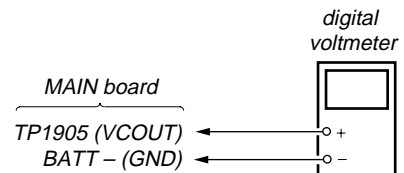
**Adjustment and Connection Location:** MAIN board  
(see page 22)

• **Adjustment Method of VC2\_HIGH**  
(item number: 744)

Set LCD display



1. Connect a digital voltmeter to the TP1905 (VCOUT) on the MAIN board, and adjust **[VOL +]** key (voltage up) or **[VOL -]** key (voltage down) so that the voltage becomes  $2.55 \pm 0.01V$ .

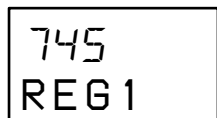


2. Press the **[▶II/ENTER]** key to write the adjusted value.

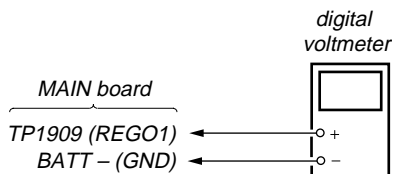
**Adjustment and Connection Location:** MAIN board  
(see page 22)

## • Adjustment Method of REG1 (item number: 745)

Set LCD display



1. Connect a digital voltmeter to the TP1909 (REGO1) on the MAIN board, and adjust **[VOL +]** key (voltage up) or **[VOL -]** key (voltage down) so that the voltage becomes  $2.05 \pm 0.01V$ .

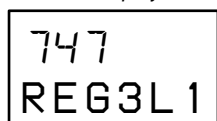


2. Press the **[▶II/ENTER]** key to write the adjusted value.

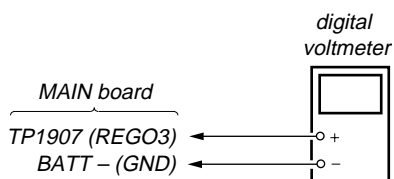
**Adjustment and Connection Location:** MAIN board  
(see page 22)

## • Adjustment Method of REG3\_LOW1 (item number: 747)

Set LCD display



1. Connect a digital voltmeter to the TP1907 (REGO3) on the MAIN board, and adjust **[VOL +]** key (voltage up) or **[VOL -]** key (voltage down) so that the voltage becomes  $1.25 \pm 0.01V$ .

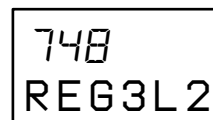


2. Press the **[▶II/ENTER]** key to write the adjusted value.

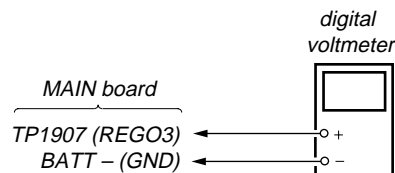
**Adjustment and Connection Location:** MAIN board  
(see page 22)

## • Adjustment Method of REG3\_LOW2 (item number: 748)

Set LCD display



1. Connect a digital voltmeter to the TP1907 (REGO3) on the MAIN board, and adjust **[VOL +]** key (voltage up) or **[VOL -]** key (voltage down) so that the voltage becomes  $1.25 \pm 0.01V$ .

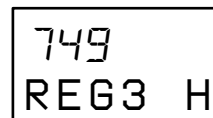


2. Press the **[▶II/ENTER]** key to write the adjusted value.

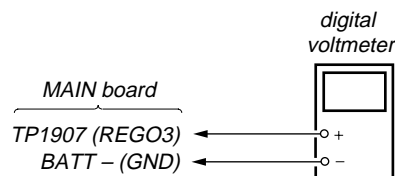
**Adjustment and Connection Location:** MAIN board  
(see page 22)

## • Adjustment Method of REG3\_HIGH (item number: 749)

Set LCD display



1. Connect a digital voltmeter to the TP1907 (REGO3) on the MAIN board, and adjust **[VOL +]** key (voltage up) or **[VOL -]** key (voltage down) so that the voltage becomes  $1.25 \pm 0.01V$ .



2. Press the **[▶II/ENTER]** key to write the adjusted value.

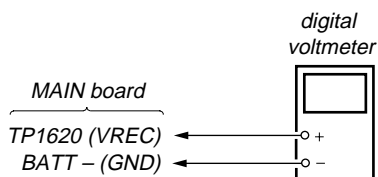
**Adjustment and Connection Location:** MAIN board  
(see page 22)

- **Adjustment Method of VREC\_LOW (X2 speed)**  
(item number: 751)

Set LCD display



1. Connect a digital voltmeter to the TP1620 (VREC) on the MAIN board, and adjust **[VOL +]** key (voltage up) or **[VOL -]** key (voltage down) so that the voltage becomes  $1.20 \pm 0.02V$ .



2. Press the **[▶II/ENTER]** key to write the adjusted value.

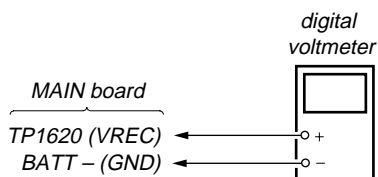
**Adjustment and Connection Location:** MAIN board  
(see page 22)

- **Adjustment Method of VREC\_MIDDLE (X4 speed)**  
(item number: 752)

Set LCD display



1. Connect a digital voltmeter to the TP1620 (VREC) on the MAIN board, and adjust **[VOL +]** key (voltage up) or **[VOL -]** key (voltage down) so that the voltage becomes  $1.20 \pm 0.02V$ .



2. Press the **[▶II/ENTER]** key to write the adjusted value.

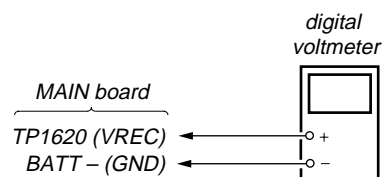
**Adjustment and Connection Location:** MAIN board  
(see page 22)

- **Adjustment Method of VREC\_HIGH (HEAD MOTOR)**  
(item number: 753)

Set LCD display



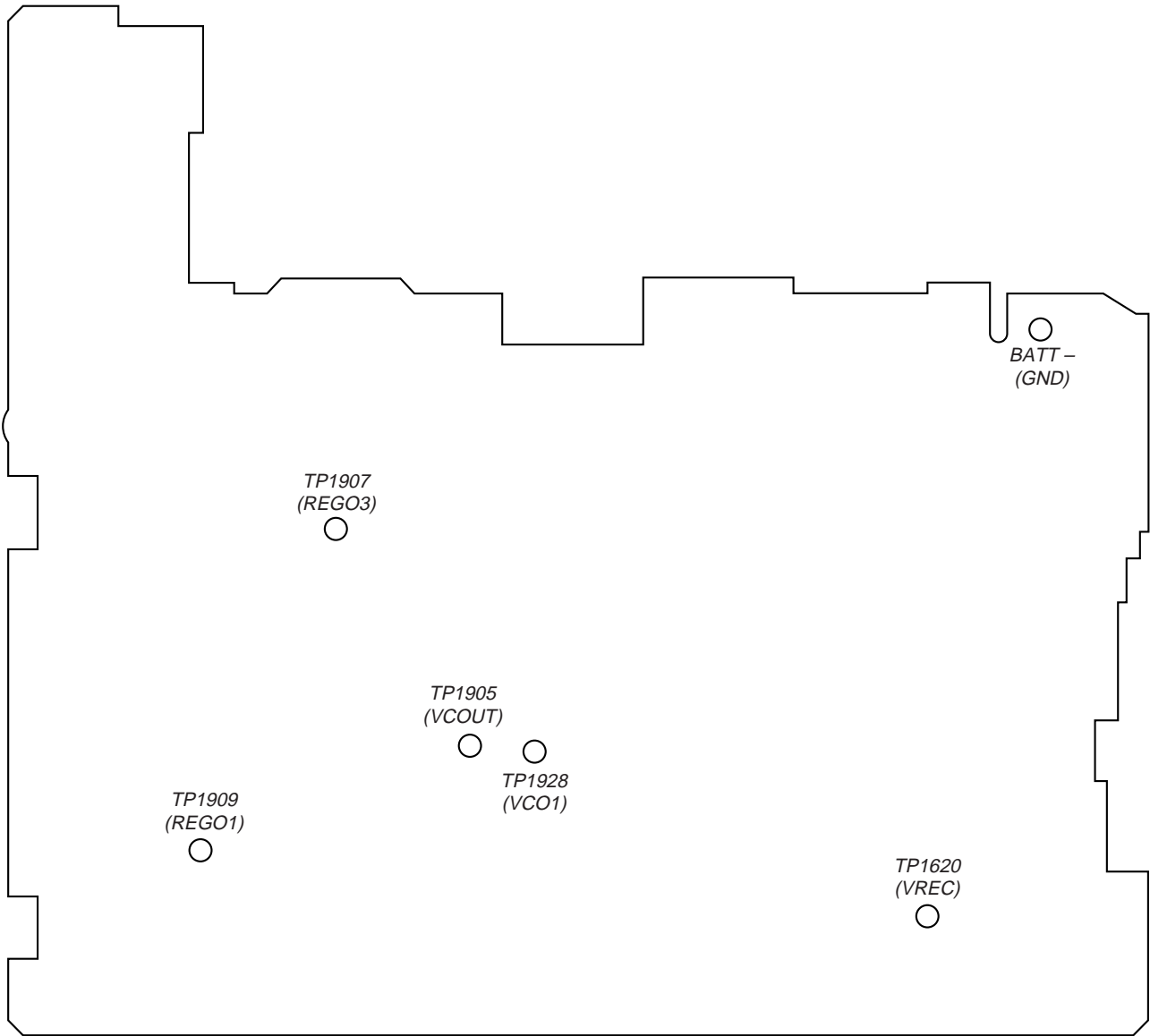
1. Connect a digital voltmeter to the TP1620 (VREC) on the MAIN board, and adjust **[VOL +]** key (voltage up) or **[VOL -]** key (voltage down) so that the voltage becomes between 1.65V and 1.75V.



2. Press the **[▶II/ENTER]** key to write the adjusted value.

**Adjustment and Connection Location:** MAIN board  
(see page 22)

Adjustment and Connection Location:  
– MAIN Board (Conductor Side) –



## Power Supply Adjustment Auto Item Feed

**Note:** This mode is available to perform the temperature correction and power supply adjustment without entering the manual mode.

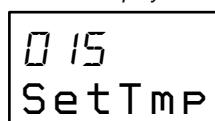
- Setting method of power supply adjustment auto item feed mode.
- Set the test mode (see page 13)
  - Press the **◀◀** key to activate the overall adjustment mode.

Set LCD display



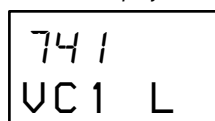
- Press the **DOWN LOAD** key to set the temperature correction mode.

Set LCD display



- To change the initial value adjust with the **VOL +** or **VOL -** key.  
Press the **▶▶/ENTER** key to write the adjusted value, and the item number increases automatically.  
When not writing the adjusted value, press the **▶▶** key to move

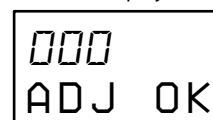
Set LCD display



to the next item.

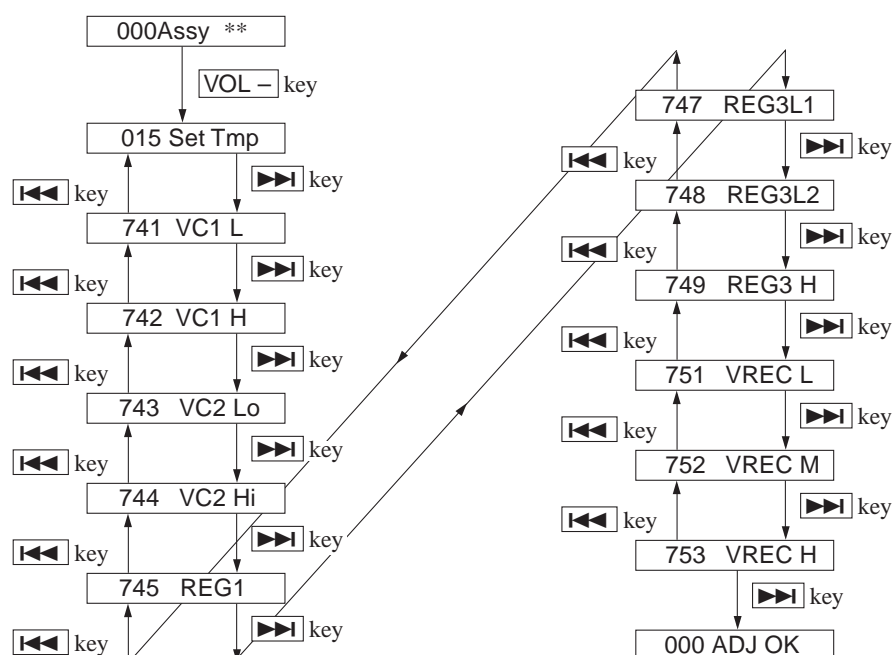
- Connect a digital voltmeter to the measuring points on the MAIN board, and adjust the voltage with the **VOL +** or **VOL -** key. (see page 18 to 21)  
Press the **▶▶/ENTER** key to write the adjusted value, and the item number increases automatically.
- When not writing the adjusted value, press the **▶▶** key to move to the next item. The **◀◀** key is available to back to the last item.
- The following message is displayed after all power supply adjustments finish.

Set LCD display



- Press the **STOP/CANCEL** key to return the test mode (display check mode).

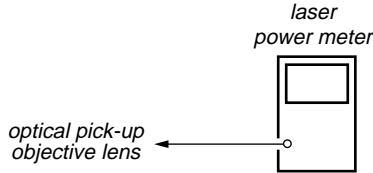
## Configuration of power supply adjustment auto item feed



## Laser Power Check

**Note:** If result of measurement of the laser power does not satisfy the specification, either replace the OP (optical pick-up unit) or check whether the laser circuit block is working correctly.  
When the result of laser power measurement does not satisfy the specification even though the laser circuit block is confirmed to be working correctly, replace the OP (optical pick-up unit).

### • Connection



### • Checking and adjusting method

1. Select the manual mode of test mode (see page 13), and set the laser power checking mode (item number 010).

Set LCD display



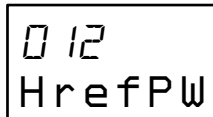
2. Press the [◀◀] key continuously until the optical pick-up moves to the most inward track.
3. Open the cover and set the laser power meter on the objective lens of the optical pick-up.
4. Press the [▶▶] key, and set the laser MO read check mode (item number 011).

Set LCD display



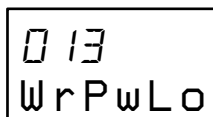
5. Check that the laser power meter reading is  $0.800 \pm 0.10$  mW.
6. Press the [▶▶] key, and set the laser CD read check mode (item number 012).

Set LCD display



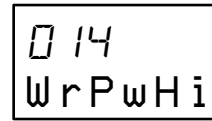
7. Check that the laser power meter reading is  $0.910 \pm 0.11$  mW.
8. Press the [▶▶] key, and set the laser MO (X2 speed) write check mode (item number 013).

Set LCD display



9. Check that the laser power meter reading is  $4.95 \pm 0.59$  mW.
10. Press the [▶▶] key, and set the laser MO (X4 speed) write check mode (item number 014).

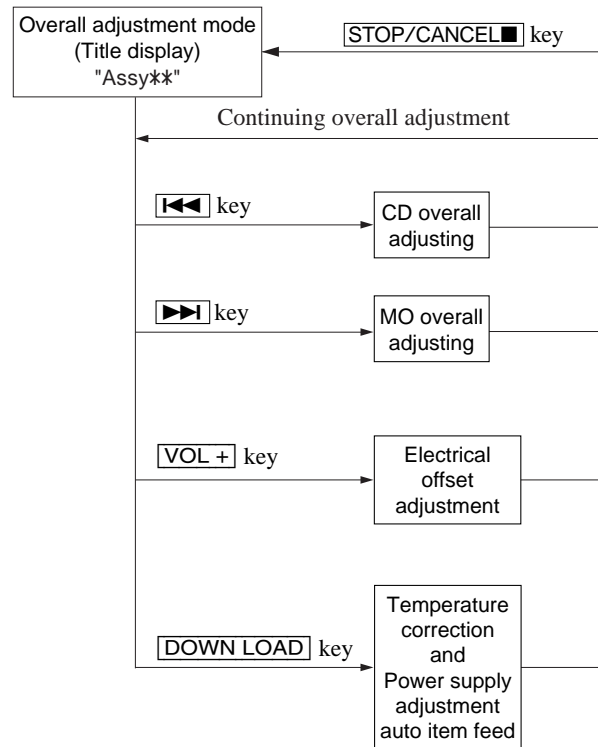
Set LCD display



11. Check that the laser power meter reading is  $5.93 \pm 0.71$  mW.
12. Press the [STOP/CANCEL] key to quit the manual mode, and activate the test mode (display check mode).

## Overall Adjustment Mode

### • Configuration of Overall Adjustment Mode



### • Overall Adjustment Mode (Title Display)

Set LCD display




⊙: (Disc mark) At end of power supply adjustment: Outside lit  
 \*\*: Left side = MO overall adjustment information  
   F\*: MO overall adjustment completed  
   1\*: Manual adjustment exists (overall adj. not completed)  
   0\*: Not adjusted  
 Right side = CD overall adjustment information  
   F\*: CD overall adjustment completed  
   1\*: Manual adjustment exists (overall adj. not completed)  
   0\*: Not adjusted

**Note:** Adjust the CD first, when performing adjustment.




### • Adjustment Method of CD and MO Overall Adjustment Mode

1. Set the test mode (see page 13).
2. Press the  key to activate the overall adjustment mode.

Set LCD display



3. Insert CD disc in the set, and press the  key to set the CD overall adjustment mode. Automatic adjustments are made.

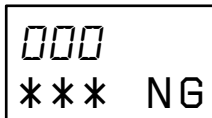
Set LCD display



XXX: Item number for which an adjustment is being executed.

4. In case of CD overall adjustment NG, readjust from the NV reset (see page 18). The temperature correction (see page 18) may be omitted.

Set LCD display




\*\*\*: NG item number.

5. If OK through the CD overall adjustments, then perform MO overall adjustments.

Set LCD display



6. Insert MO disc in the set, and press the  key to set the MO overall adjustment mode. Automatic adjustments are made.

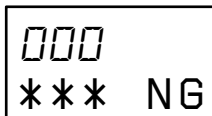
Set LCD display




XXX: Item number for which an adjustment is being executed.

7. In case of MO overall adjustment NG, readjust from the NV reset (see page 18). The temperature correction (see page 18) may be omitted.

Set LCD display



\*\*\*: NG item number.

8. If OK through the MO overall adjustments, press the  key to return to the test mode and terminate the overall adjustment mode.

Set LCD display



### • Overall Adjustment error message

The following message will be displayed if adjustment procedure is mistaken in the CD and MO overall adjustment.

| Message | Display timing  | Description   |
|---------|---|---|
| CLOSE!  | During CD/MO/DISC automatic distinction overall adjustment                          | DISC is not inserted.   |
| Set CD! | During MO/DISC automatic distinction overall adjustment<br>During offset adjustment | <ul style="list-style-type: none"> <li>• CD overall adjustment is not completed in the MO overall adjustment.</li> <li>• CD and MO overall adjustment is not completed in the offset adjustment.</li> </ul> |
| Set MO! | During offset adjustment  | MO overall adjustment is not completed in the offset adjustment   |
| NoTmp!  | During CD/MO/DISC automatic distinction overall adjustment                          | Temperature correction (item number 015) is not finished.   |

### • CD and MO Overall Adjustment Items

#### 1. CD overall adjustment items

| Item No.                                     | Description                           |
|--|---------------------------------------|
| 761  | VC,VR power supply H/L selection      |
| 300  | HPIT setting . servo OFF              |
| 561  | SLED inward movement                  |
| 562  | SLED outward movement                 |
| High reflection electrical offset adjustment |                                       |
| 312  | Laser ON . Focus UP . vc correction   |
| ALFA offset adjustment                       |                                       |
| 313  | IJ offset adjustment                  |
| 314  | FE offset adjustment                  |
| HPIT adjustment                              |                                       |
| 320  | Focus servo ON                        |
| 324  | TE offset adjustment 1                |
| 321  | TE gain adjustment                    |
| 328  | TWPP gain adjustment                  |
| 324  | TE offset adjustment 1                |
| 332  | TE offset adjustment 2                |
| 330  | Tracking servo ON                     |
| 336  | ABCD gain adjustment                  |
| 337  | KF gain correction                    |
| 338  | RF gain adjustment                    |
| 344  | FCS gain adjustment                   |
| 345  | TRK gain adjustment                   |
| 521  | Two-axis sensitivity (outer position) |
| 522  | Two-axis sensitivity (outer position) |
| 300  | HPIT setting . servo OFF              |

## 2. MO overall adjustment items

| Item No.                                    | Description                       |
|---|-----------------------------------|
| 716   | VC,VR power supply H/L selection  |
| 100   | R_GRV setting . servo OFF         |
| Low reflection electrical offset adjustment |                                   |
| 112   | Laser ON . Focus UP vc correction |
| ALFA offset adjustment                      |                                   |
| 113   | IJ offset adjustment              |
| 114   | FE offset adjustment              |
| 118   | Wpp denominator offset adjustment |
| LPIT adjustment                             |                                   |
| 200   | LPIT setting . servo OFF          |
| 561   | SLED inward movement              |
| 220   | Focus servo ON                    |
| 224   | TE offset adjustment 1            |
| 221   | TE gain adjustment                |
| 224   | TE offset adjustment 1            |
| 232   | TE offset adjustment 2            |
| 230   | Tracking servo ON                 |
| 236   | ABCD gain adjustment              |
| 237   | KF gain correction                |
| 238   | RF gain adjustment                |
| 244   | Focus gain adjustment             |
| 245   | Tracking gain adjustment          |
| READ GRV adjustment 1                       |                                   |
| 100   | R_GRV setting . servo OFF         |
| 562   | SLED outward movement             |
| 120   | Focus servo ON                    |
| 122   | TON offset adjustment             |
| 121   | TE gain adjustment                |
| 122   | TON offset adjustment             |
| 123   | TEIN offset adjustment            |
| 124   | TWPP offset adjustment 1          |
| 130   | Tracking servo ON                 |
| 131   | TWPP offset adjustment 1          |
| 136   | ABCD gain adjustment              |
| 137   | KF gain correction                |
| 139   | ADIP BPF f0 adjustment            |
| 144   | Focus gain adjustment             |
| 145   | Tracking gain adjustment          |
| 134   | TWPP gain adjustment              |
| 131   | TWPP offset adjustment 1          |
| 132   | TWPP offset adjustment 2          |
| 149   | TWPP OP offset adjustment         |
| WRITE GRV adjustment                        |                                   |
| 410   | HEAD DOWN . GRV servo ON          |
| 420   | READ → WRITE selection            |
| 421   | TE gain adjustment                |
| 423   | TEIN offset adjustment            |
| 430   | Tracking servo ON                 |
| 431   | TWPP offset adjustment 1          |
| 436   | ABCD gain adjustment              |

| Item No.              | Description                       |
|-----------------------|-----------------------------------|
| 444                   | Focus gain adjustment             |
| 445                   | Tracking gain adjustment          |
| 434                   | TWPP gain adjustment              |
| 431                   | TWPP offset adjustment 1          |
| 432                   | TE offset adjustment 2            |
| 449                   | TWPP OP offset adjustment         |
| 410                   | WRITE → READ selection            |
| 411                   | TWPP offset adjustment 1          |
| 412                   | TE offset adjustment 2            |
| 418                   | TWPP OP offset adjustment         |
| 490                   | HCLV LCLV selection process       |
| 450                   | HEAD DOWN . GRV servo ON          |
| 460                   | READ → WRITE selection            |
| 461                   | TE gain adjustment                |
| 463                   | TEIN offset adjustment            |
| 470                   | Tracking servo ON                 |
| 471                   | TWPP offset adjustment 1          |
| 476                   | ABCD gain adjustment              |
| 484                   | Focus gain adjustment             |
| 485                   | Tracking gain adjustment          |
| 451                   | TWPP offset adjustment 1          |
| 452                   | TE offset adjustment 2            |
| 460                   | READ → WRITE selection            |
| 470                   | Tracking servo ON                 |
| 474                   | TWPP gain adjustment              |
| 471                   | TWPP offset adjustment 1          |
| 472                   | TE offset adjustment 2            |
| 489                   | TWPP OP offset adjustment         |
| 450                   | WRITE → READ selection            |
| 451                   | TWPP offset adjustment 1          |
| 452                   | TE offset adjustment 2            |
| 458                   | TWPP OP offset adjustment         |
| 448                   | 30 sec continuous REC             |
| 400                   | GRV setting . servo OFF . HEAD UP |
| READ GRV adjustment 2 |                                   |
| 120                   | Focus servo ON                    |
| 130                   | Tracking servo ON                 |
| 138                   | RF gain adjustment                |
| 141                   | FOCUS_BIAS                        |
| 035                   | Stray light offset measurement    |
| 100                   | R_GRV setting . servo OFF         |

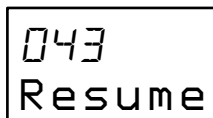
## Remuse Clear

Perform the Resume clear when all adjustments completed.

### • Resume Clear Setting Method

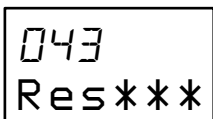
1. Select the manual mode of the test mode, and set item number 043 (see page 14).

*Set LCD display*

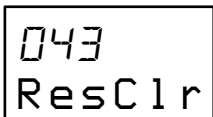



2. Press the  key.

*Set LCD display*



↓ *Resume clear complete*



3. Press the  key to return to the test mode (display check mode).

## Rewriting the Patch Data and NV values at Replacement of Main Board

This set requires the patch data in the nonvolatile memory (IC852) to be rewritten using the application, when the MAIN board was replaced.

**Caution:** The application that meets the microcomputer version in this set must be used when rewriting the patch data. Rewriting the patch data using the application not suitable for the microcomputer version could cause the set to malfunction.  
For a checking method of the microcomputer version, see “SECTION 4 TEST MODE” (page 13).

### • Preparation

1. USB cable (attached to the set)
2. Personal computer in which the Net MD Driver has been installed. (For further information, see “System requirements” (page 4) in “SECTION 1 SERVICING NOTES”)
3. Application “PatchWriter” for the patch data and NV values rewriting

### • How to Get the Application “PatchWriter” for Patch Data Rewriting

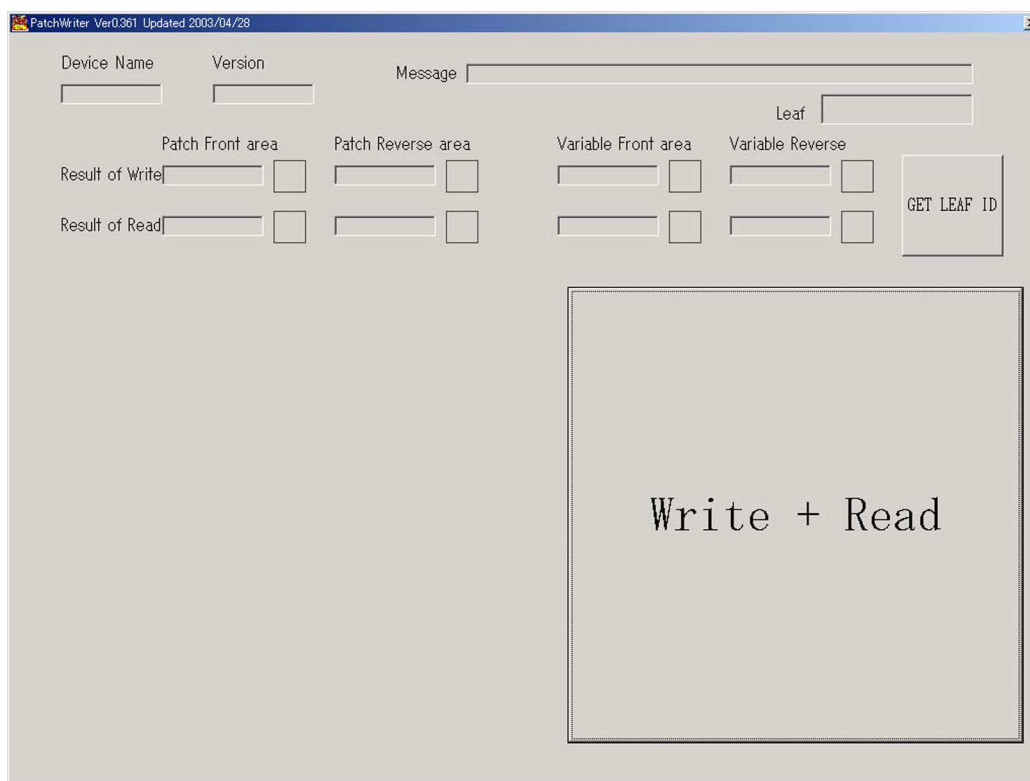
Contact our service technical support section for PA products to get the application.

### • Pre-check

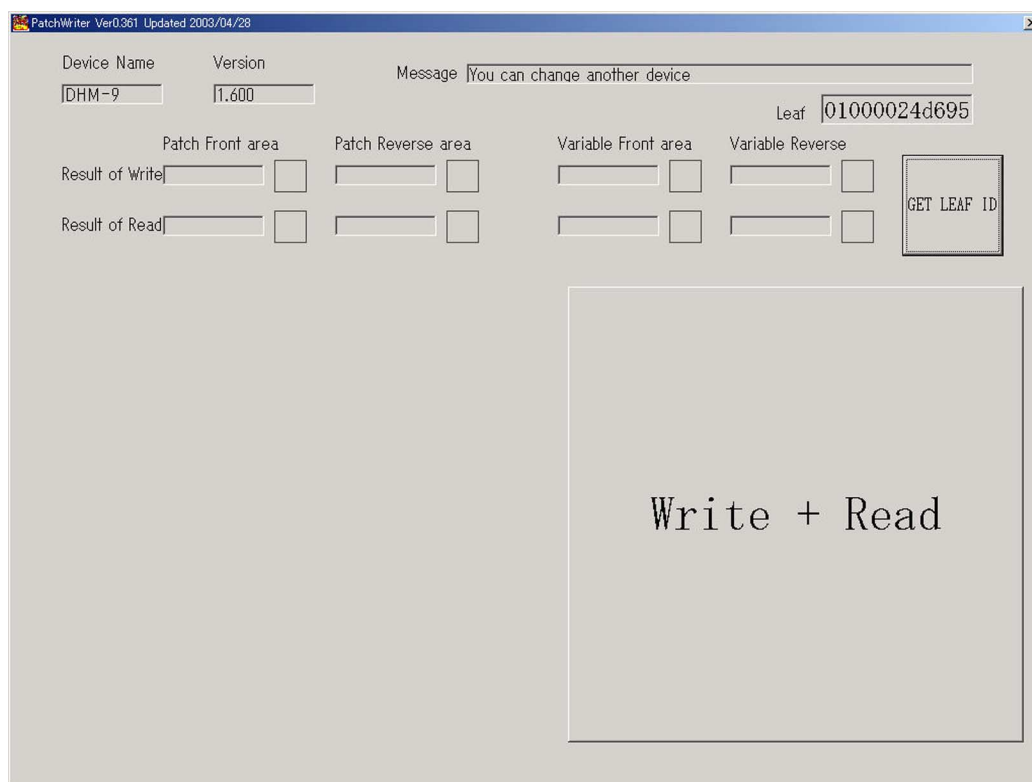
1. Check the microcomputer version in this set. (For a checking method of the microcomputer version, see “SECTION 4 TEST MODE” (page 13).)
2. Check that the Net MD Driver has been installed in the personal computer.
3. Make sure that the set is in the Normal mode.  
**Note:** Do not rewrite the patch data in the Test mode.

### • Rewriting the Patch Data

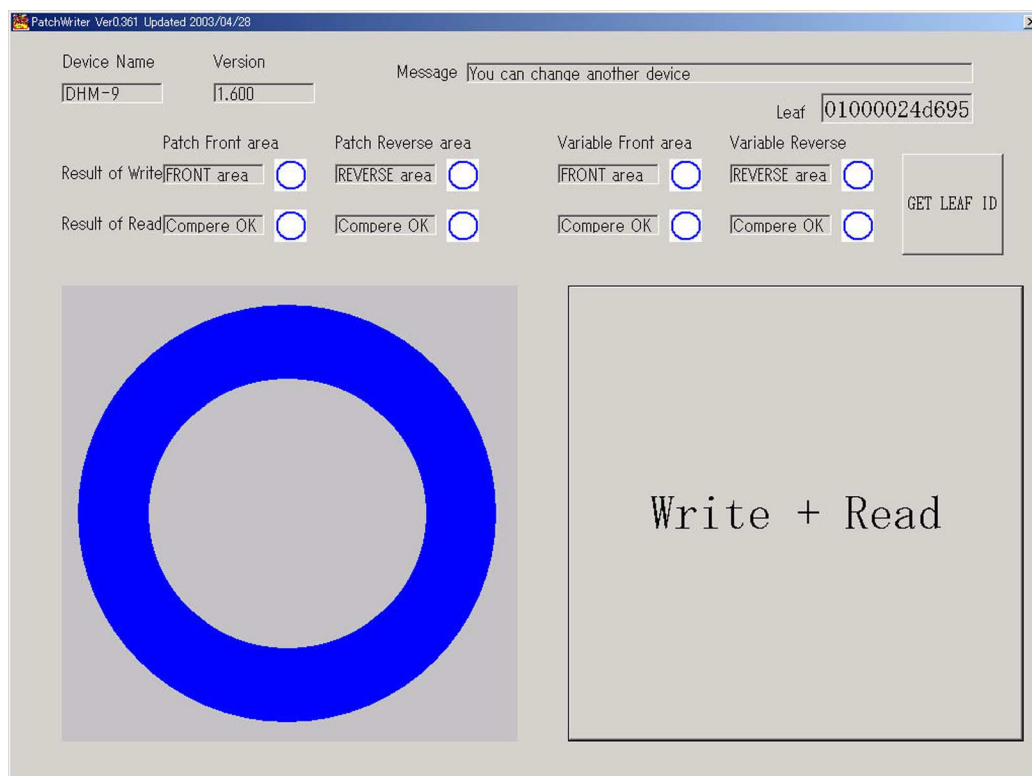
1. Connect the set to the personal computer with the USB cable.
2. Start the application “PatchWriter”.
3. Make sure that the following window opens.
4. Click the [GET LEAF ID] button.



- Confirm that the model and version indicated on the title bar coincide with the codes displayed in the Device Name block and the Version block in the window.



- Click the [Write + Read] button.  
The patch data and NV values writing and the verify processing will be executed automatically.
- The operation will terminate with the ○ (blue) mark given to all areas.  
If the × (red) mark is given to any area, the nonvolatile memory will be faulty.



- Disconnect the USB cable from the personal computer and the set.

MEMO

• SIGNAL PATH  
 : PLAYBACK  
 : REC  
 : USB

(Page 31) **A** CLK

(Page 31) **D** SDO





6-3. NOTE FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

Note on Printed Wiring Board:

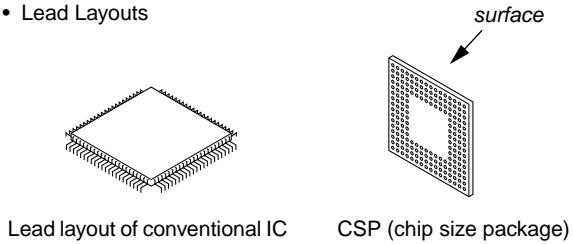
- : parts extracted from the component side.
- : parts extracted from the conductor side.
- △ : internal component.
- : Pattern from the side which enables seeing.  
(The other layers' patterns are not indicated.)

Caution:  
Pattern face side: Parts on the pattern face side seen from the pattern face are indicated.  
(Conductor Side)  
Parts face side: Parts on the parts face side seen from the parts face are indicated.  
(Component Side)

- MAIN board is multi-layer printed board.  
However, the patterns of intermediate layers have not been included in this diagrams.

\* Replacement of IC501 and IC801 used in this set requires a special tool.

Lead Layouts



Note on Schematic Diagram:

- All capacitors are in  $\mu\text{F}$  unless otherwise noted.  $\text{pF}$ :  $\mu\text{F}$  50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in  $\Omega$  and  $\frac{1}{4} \text{ W}$  or less unless otherwise specified.
- △ : internal component.
- : panel designation.

Note:

The components identified by mark △ or dotted line with mark △ are critical for safety.  
Replace only with part number specified.

Note:

Les composants identifiés par une marque △ sont critiques pour la sécurité.  
Ne les remplacer que par une pièce portant le numéro spécifié.

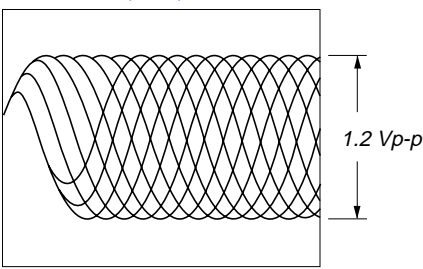
- : B+ Line.
- Total current is measured with MD installed.
- Power voltage is dc 3 V and fed with regulated dc power supply from DC IN 3 V jack (JK951).
- Voltages and waveforms are dc with respect to ground in playback mode.  
no mark : PLAYBACK  
( ) : REC  
<< >> : USB  
\* : Impossible to measure
- Voltages are taken with a VOM (Input impedance 10 M $\Omega$ ).  
Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope.  
Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.  
⇒ : PLAYBACK  
⇒ : REC  
⇒ : USB
- Abbreviation  
EE : East European model

\* Replacement of IC501 and IC801 used in this set requires a special tool.

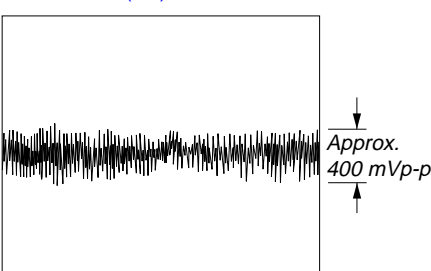
- The voltage and waveform of CSP (chip size package) cannot be measured, because its lead layout is different form that of conventional IC.

Waveforms

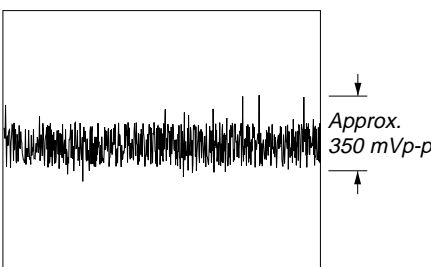
1 IC501 ⑨ (RFO)



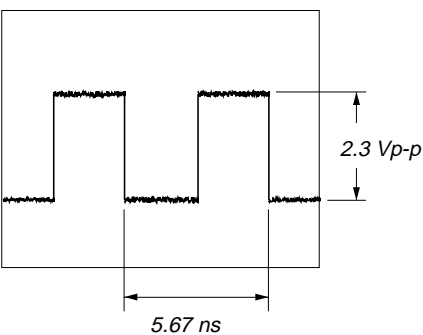
2 IC501 ⑬ (TE)



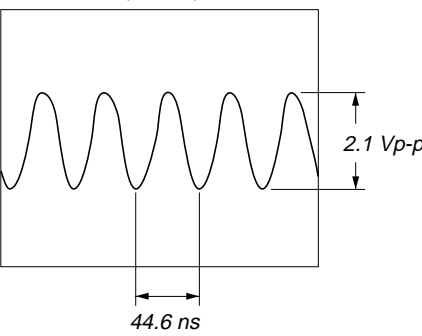
3 IC501 ⑭ (FE)



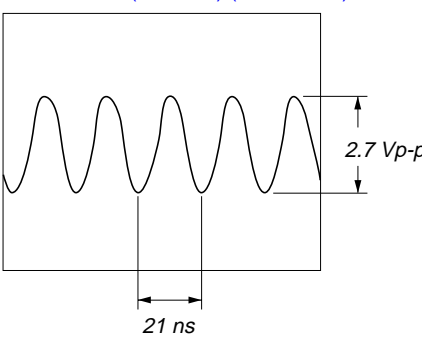
4 IC601 ④ (CLK)



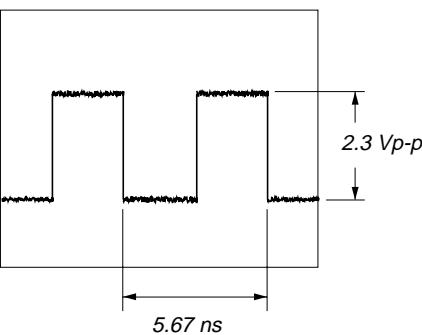
5 IC801 ② (OSCO)




6 IC801 ⑩ (UOSCO) (USB mode)



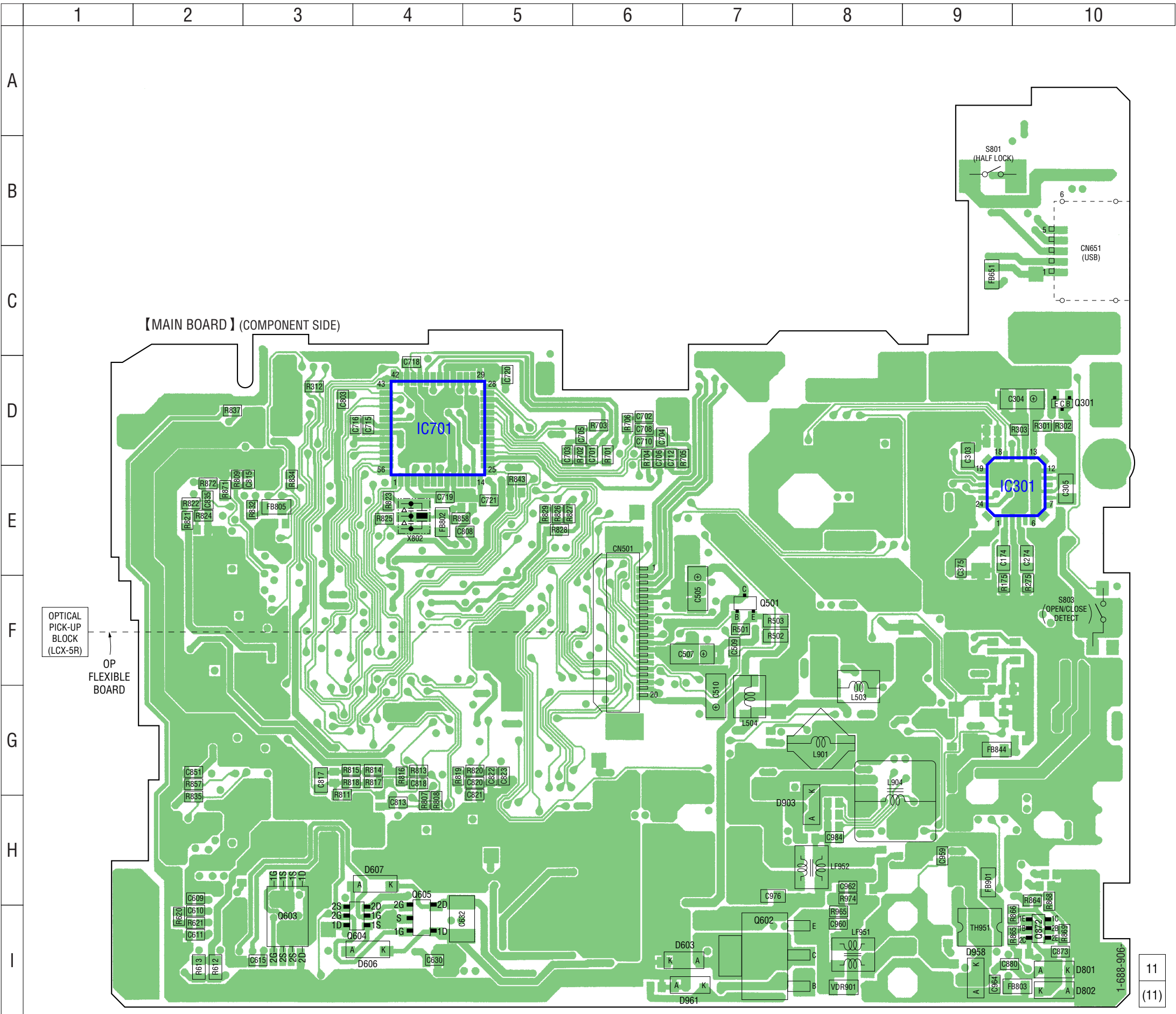
7 IC901 ⑥ (CLK)




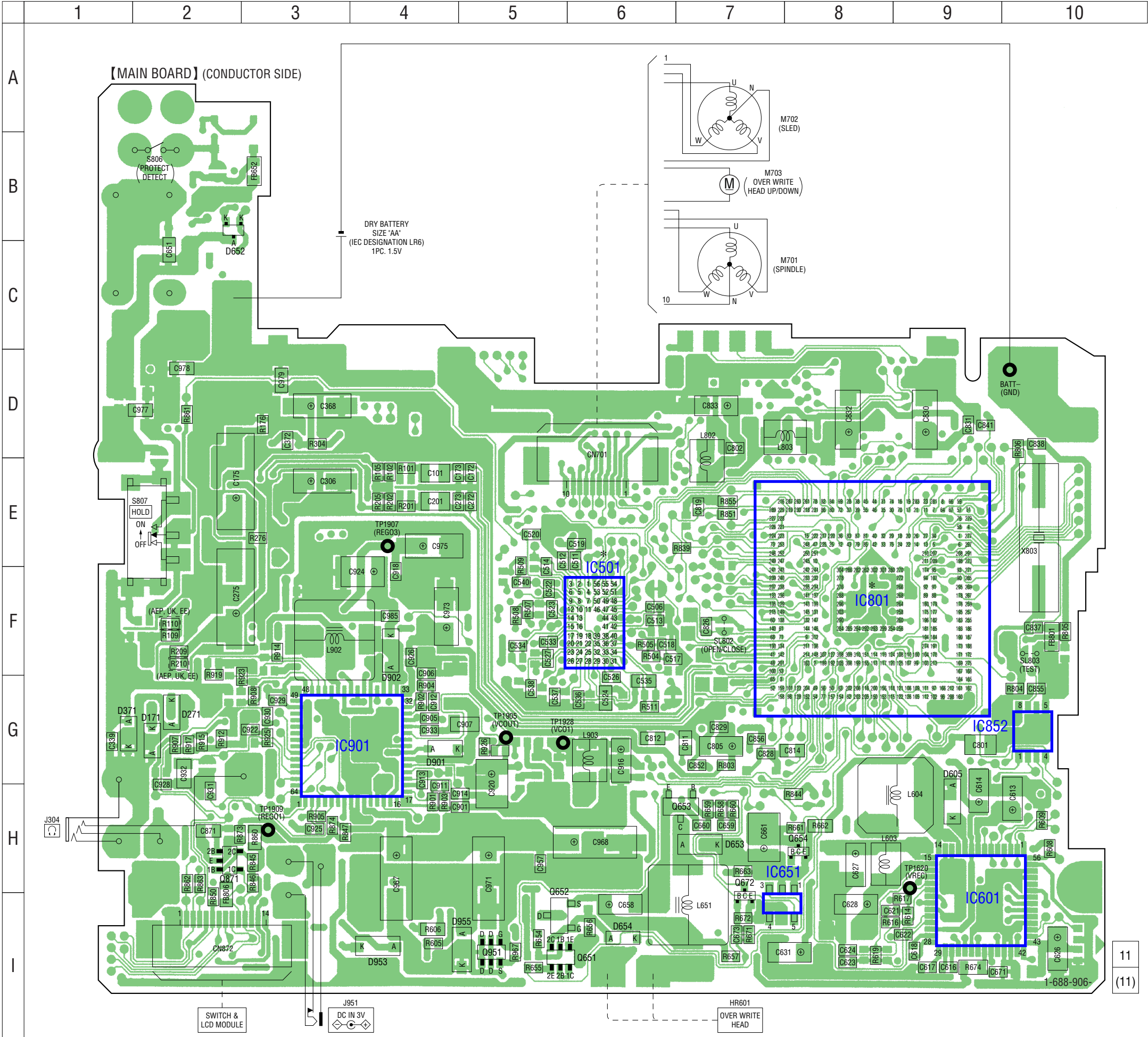
6-4. PRINTED WIRING BOARD – MAIN Board (Component Side) –  :Uses unleaded solder.

• Semiconductor Location

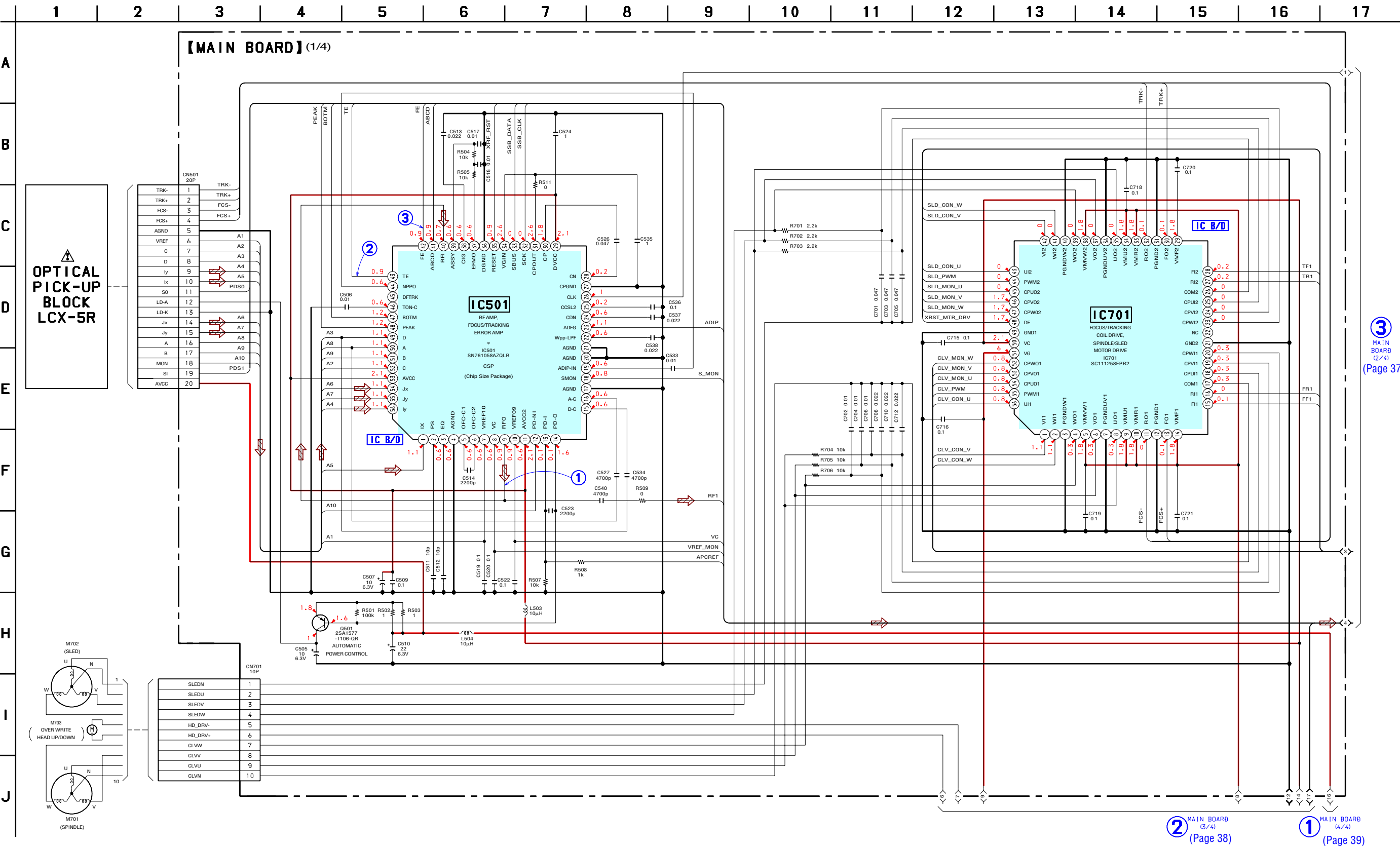
| Ref. No. | Location |
|----------|----------|
| D603     | I-6      |
| D606     | I-4      |
| D607     | H-4      |
| D801     | I-10     |
| D802     | I-10     |
| D903     | H-8      |
| D958     | I-9      |
| D961     | I-7      |
| IC301    | E-10     |
| IC701    | D-4      |
| Q301     | D-10     |
| Q501     | F-7      |
| Q602     | I-6      |
| Q603     | I-3      |
| Q604     | I-4      |
| Q605     | I-4      |
| Q872     | I-10     |





6-5. PRINTED WIRING BOARD – MAIN Board (Conductor Side) –  :Uses unleaded solder.



**6-6. SCHEMATIC DIAGRAM – MAIN Board (1/4) – • See page 33 for Waveforms. • See page 40 for IC Block Diagrams.**

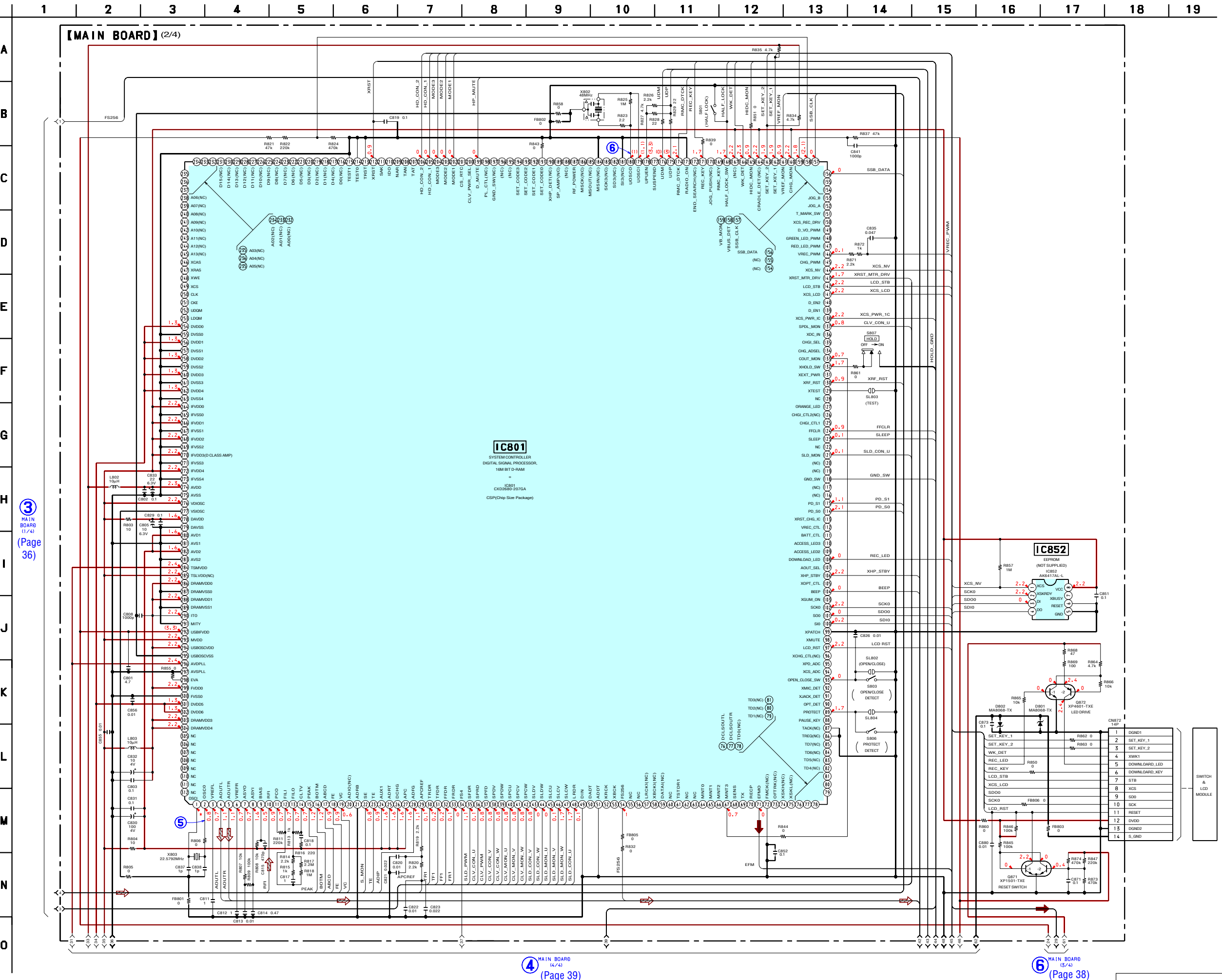


The components identified by mark  or dotted line with mark  are critical for safety.  
Replace only with part number specified.

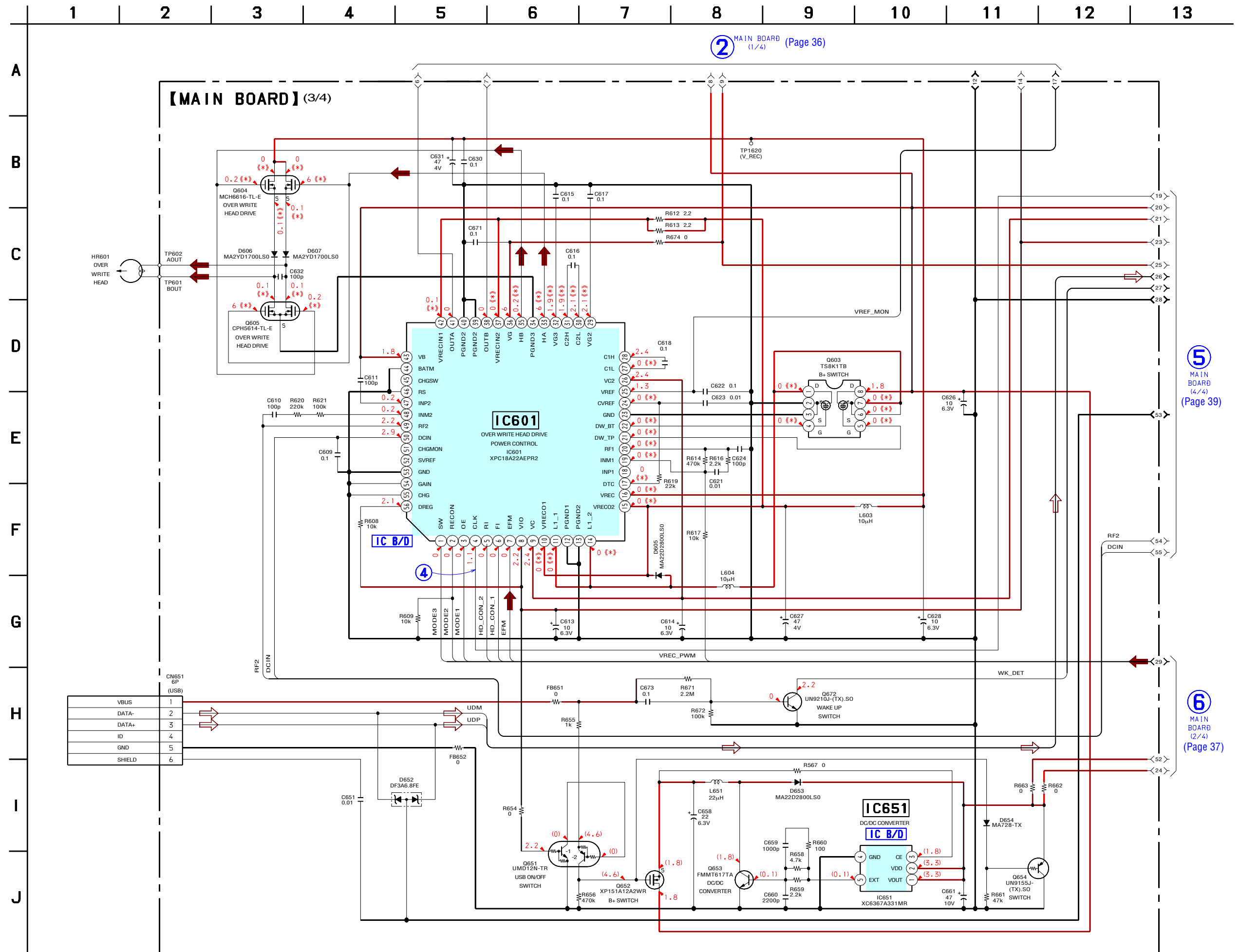
Les composants identifiés par une marque  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.



6-7. SCHEMATIC DIAGRAM – MAIN Board (2/4) – • See page 33 for Waveforms.



**6-8. SCHEMATIC DIAGRAM – MAIN Board (3/4) – • See page 33 for Waveform. • See page 40 for IC Block Diagrams.**

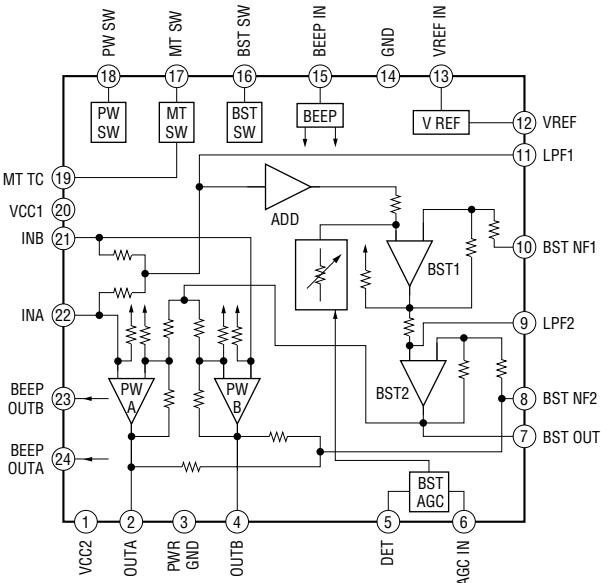




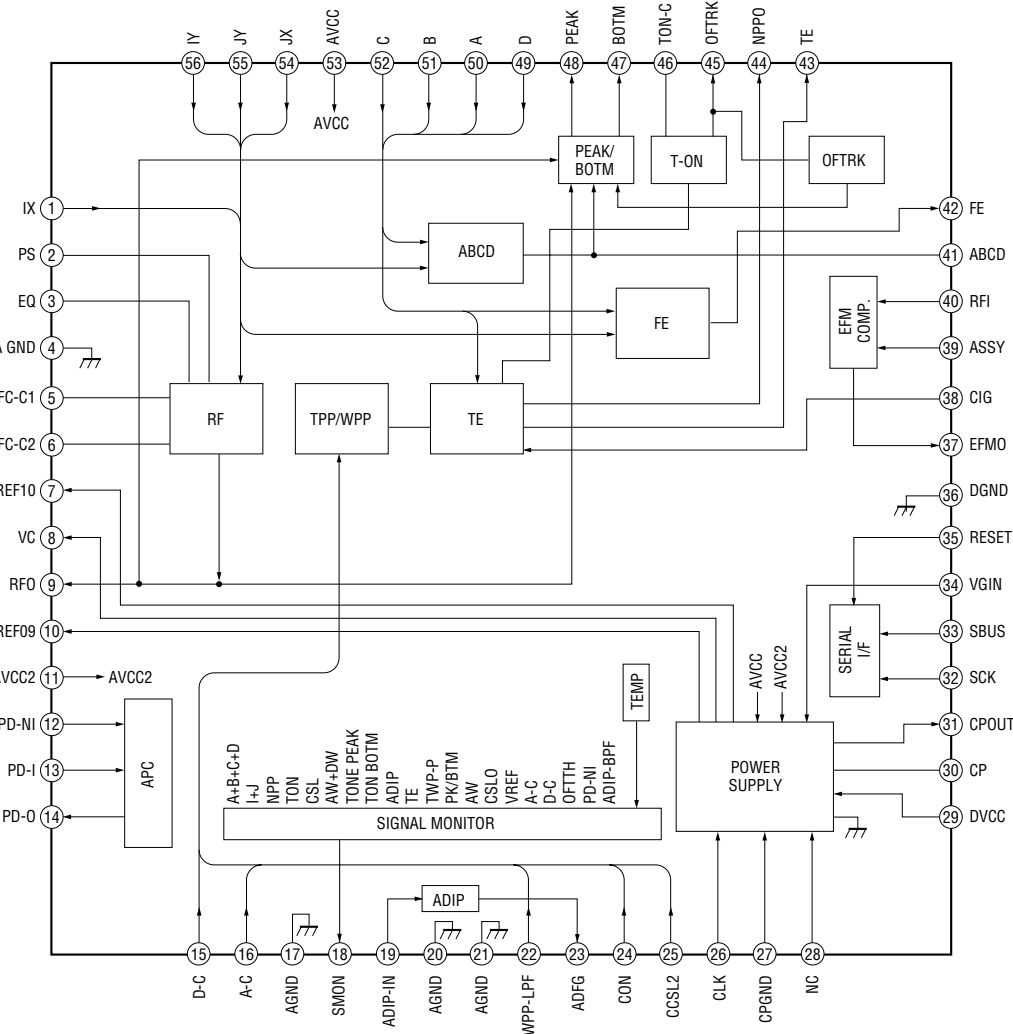
# AM-NX9

- **IC Block Diagrams**

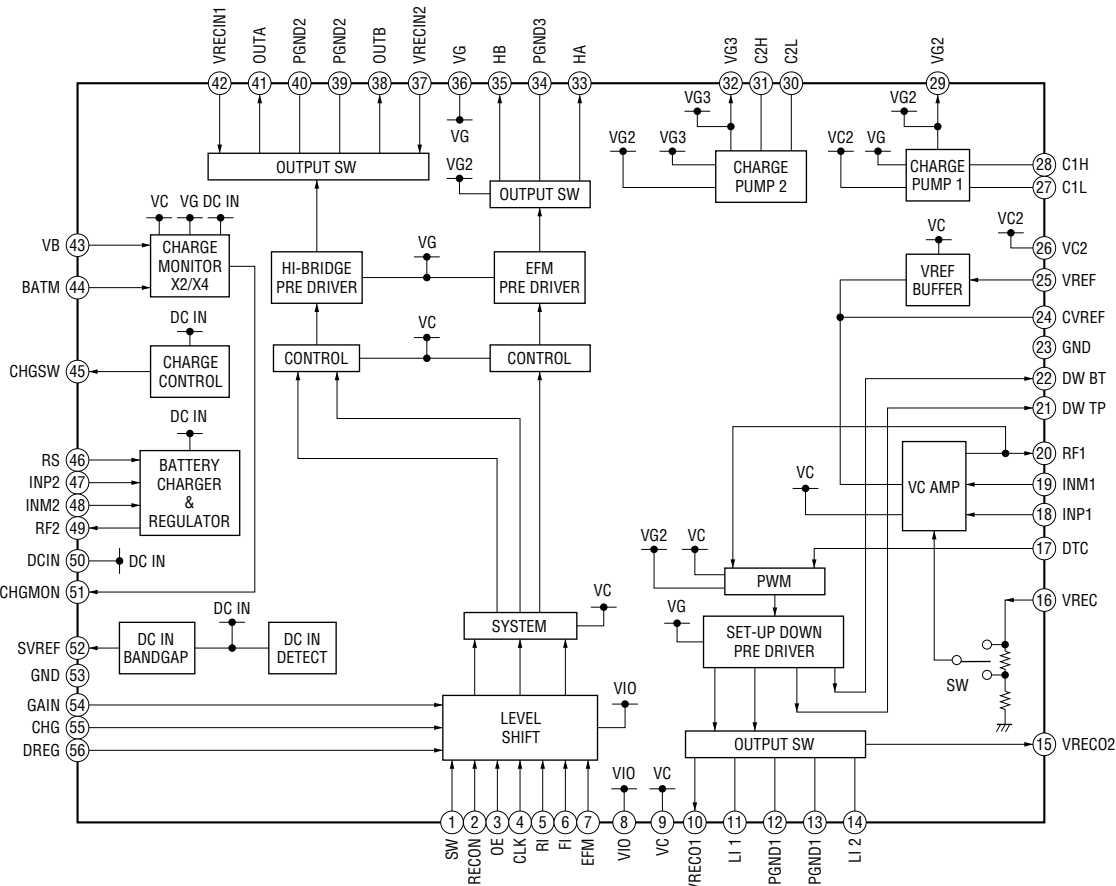
## IC301 TA2131FL (EL)



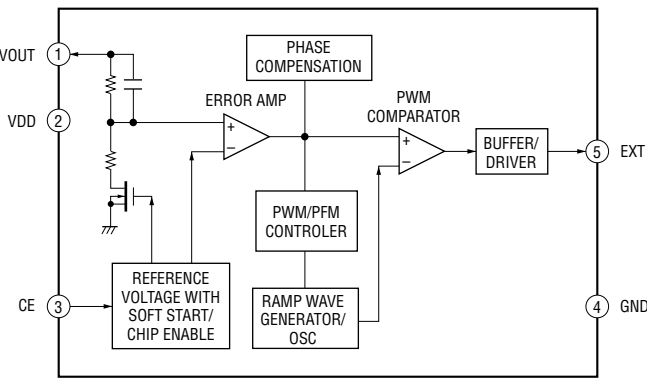
## IC501 SN761058AZQLR



**IC601 XPC18A22AEPR2**

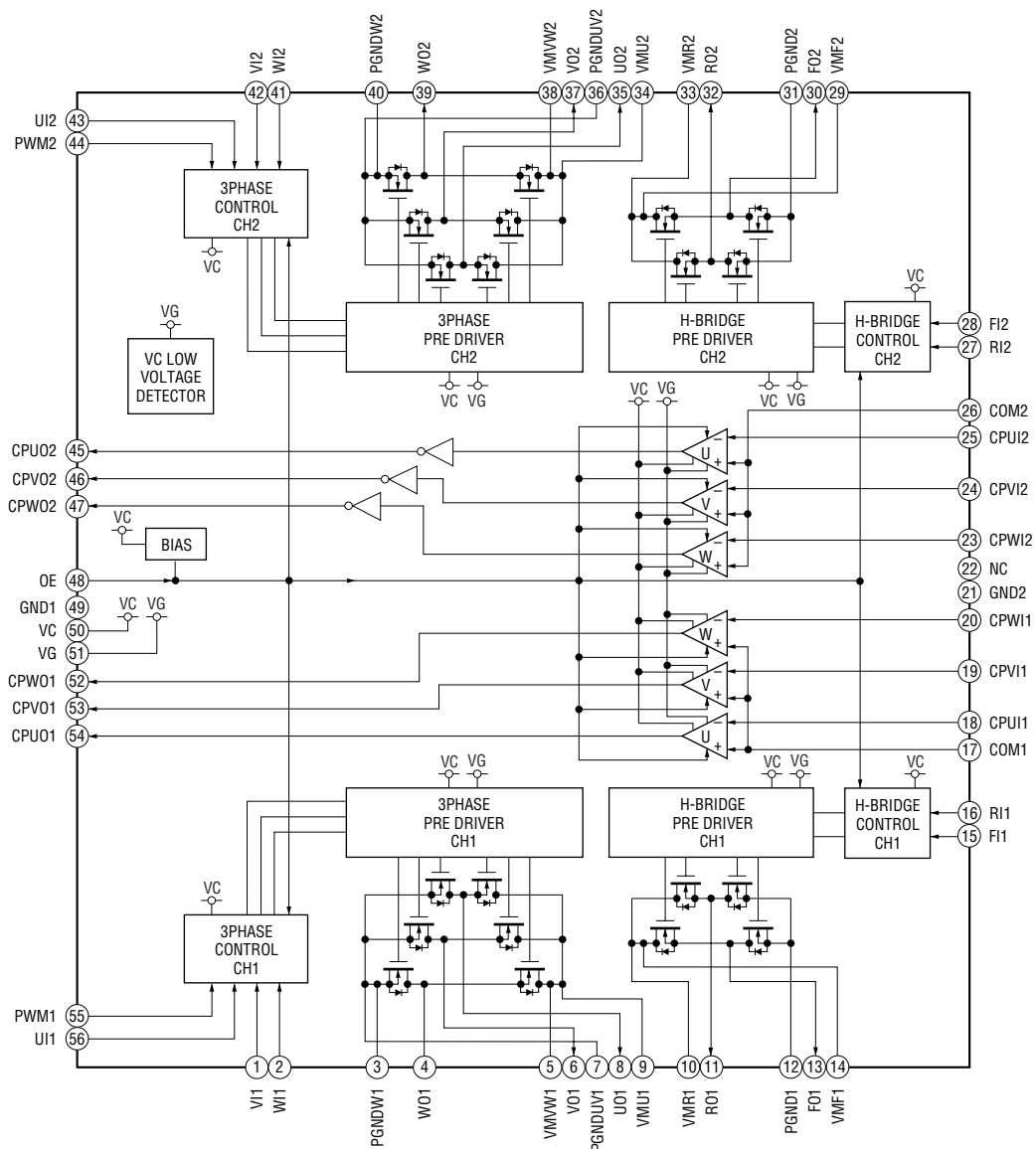


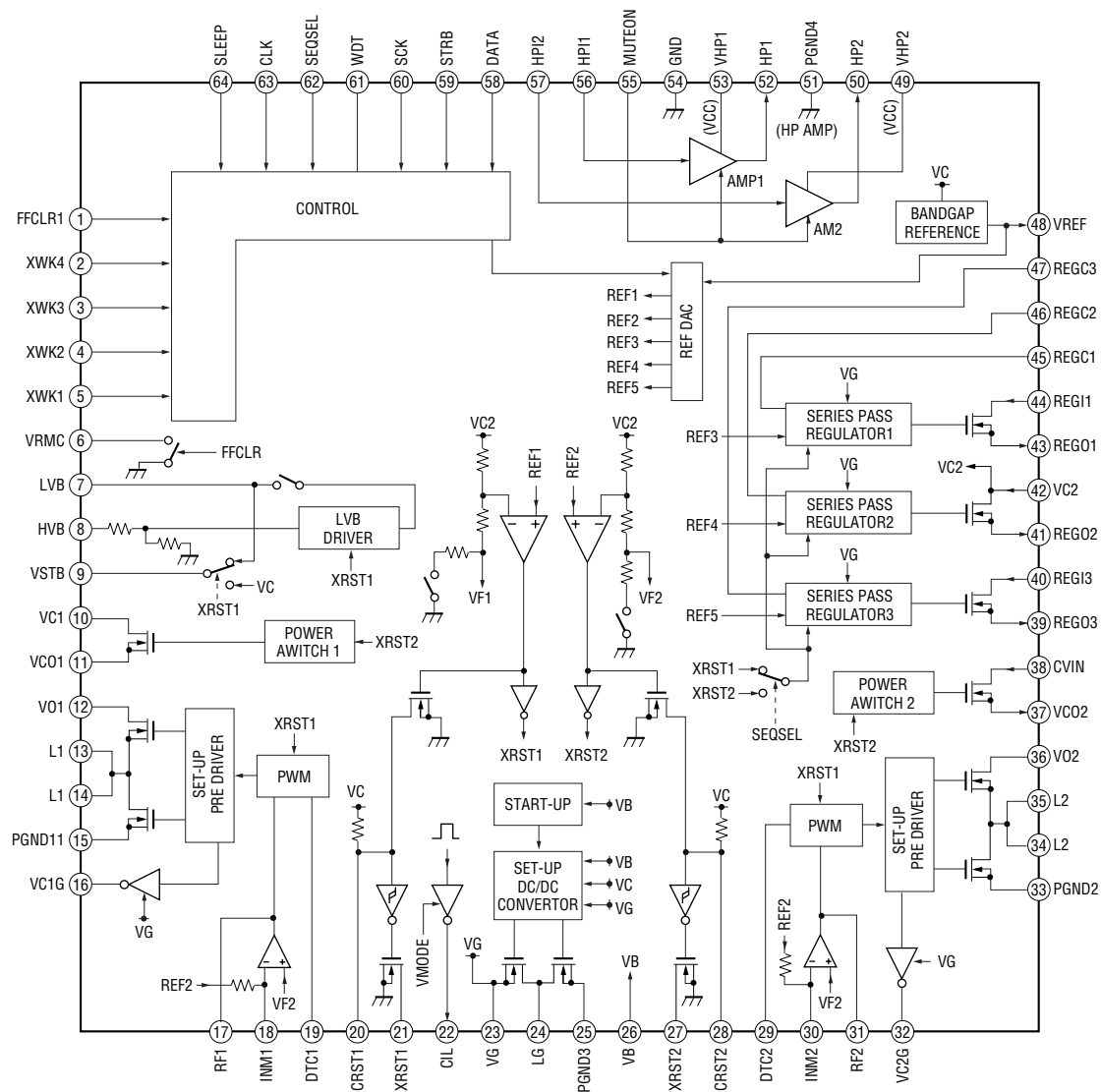
**IC651 XC6367A331MR**





## IC701 SC111258EPR2





## 6-10. IC PIN FUNCTION DESCRIPTION

### • IC501 SN761058AZQLR (RF AMP, FOCUS/TRACKING ERROR AMP)

| Pin No. | Pin Name          | I/O | Description   |
|---------|-------------------|-----|---|
| 1       | IX                | I   | I-V converted RF signal (IX) input from the optical pickup detector                           |
| 2, 3    | PS, EQ            | —   | Connected to the external capacitor for the RF and EQ   |
| 4       | AGND              | —   | Ground terminal (analog system)   |
| 5, 6    | OFC-C1,<br>OFC-C2 | —   | Connect terminal to the external capacitor for the RF AC coupling                             |
| 7       | VREF10            | O   | Reference voltage output terminal   |
| 8       | VC                | O   | Middle point voltage (+1.1V) generation output terminal                                       |
| 9       | RFO               | O   | Playback EFM RF signal output to the system controller  |
| 10      | VREF09            | O   | Connect terminal to the external capacitor for the internal reference voltage                 |
| 11      | AVCC2             | —   | Power supply terminal (+2.1V) (analog system)   |
| 12      | PD-NI             | I   | Light amount monitor input terminal (non-invert input)  |
| 13      | PD-I              | I   | Reference PWM signal input for the laser automatic power control from the system controller   |
| 14      | PD-O              | O   | Light amount monitor output terminal  |
| 15      | D-C               | I   | Signal (D) input from the optical pickup detector (AC input)                                  |
| 16      | A-C               | I   | Signal (A) input from the optical pickup detector (AC input)                                  |
| 17      | AGND              | —   | Ground terminal (analog system)   |
| 18      | SMON              | O   | Servo signal monitor output to the system controller  |
| 19      | ADIP-IN           | I   | ADIP duplex FM signal (22.05kHz + 1kHz) input terminal Not used                               |
| 20, 21  | AGND              | —   | Ground terminal (analog system)   |
| 22      | WPP-LPF           | —   | Connect terminal to the external capacitor for the TPP/WPP low-pass filter                    |
| 23      | ADFG              | O   | ADIP duplex FM signal (22.05kHz + 1kHz) output to the system controller                       |
| 24      | CDN               | —   | Connect terminal to the external capacitor for the low-pass filter of CSL divider denominator |
| 25      | CCSL2             | —   | Connect terminal to the external capacitor for the TPP/WPP low-pass filter                    |
| 26      | CLK               | I   | System clock signal (256Fs=11.2896MHz) input from the system controller                       |
| 27      | CPGND             | —   | Ground terminal (charge pump)   |
| 28      | CN                | —   | Connected to the external capacitor for the charge pump                                       |
| 29      | DVCC              | —   | Power supply terminal (+2.1V) (digital system)  |
| 30      | CP                | —   | Connected to the external capacitor for the charge pump                                       |
| 31      | CPOUT             | O   | power supply voltage output terminal for the charge pump                                      |
| 32      | SCK               | I   | SSB serial clock signal input from the system controller                                      |
| 33      | SBUS              | I   | SSB serial data input/output with the system controller                                       |
| 34      | VGIN              | I   | Analog switch and OP amplifier power supply voltage input terminal                            |
| 35      | RESET             | I   | Reset signal input from the system controller $\overline{\text{RESET}}$ : reset               |
| 36      | DGND              | —   | Ground terminal (digital system)  |
| 37      | EFMO              | O   | EFM signal output terminal  |
| 38      | CIG               | —   | Connect terminal to the external capacitor for the low-pass filter of NPP divider denominator |
| 39      | ASSY              | —   | Asymmetry input terminal Not used   |
| 40      | RFI               | I   | Playback EFM RF signal input terminal   |
| 41      | ABCD              | O   | Light amount signal (ABCD) output to the system controller                                    |
| 42      | FE                | O   | Focus error signal output to the system controller  |
| 43      | TE                | O   | Tracking error signal output to the system controller   |
| 44      | NPPO              | O   | NPP signal output terminal  |
| 45      | OFTRK             | I/O | Off track signal input terminal Not used  |
| 46      | TON-C             | —   | Connect terminal to the external capacitor for TON hold                                       |
| 47      | BOTM              | O   | Bottom hold signal output of the light amount signal (RF/ABCD) to the system controller       |

| Pin No. | Pin Name | I/O | Description   |
|---------|----------|-----|---|
| 48      | PEAK     | O   | Peak hold signal output of the light amount signal (RF/ABCD) to the system controller |
| 49      | D        | I   | Signal (D) input from the optical pickup detector                                     |
| 50      | A        | I   | Signal (A) input from the optical pickup detector                                     |
| 51      | B        | I   | Signal (B) input from the optical pickup detector                                     |
| 52      | C        | I   | Signal (C) input from the optical pickup detector                                     |
| 53      | AVCC     | —   | Power supply terminal (+2.1V) (analog system)   |
| 54      | JX       | I   | I-V converted RF signal (JX) input from the optical pickup detector                   |
| 55      | JY       | I   | I-V converted RF signal (JY) input from the optical pickup detector                   |
| 56      | IY       | I   | I-V converted RF signal (IY) input from the optical pickup detector                   |

**• IC801 CXD2680-207GA (SYSTEM CONTROLLER, DIGITAL SIGNAL PROCESSOR, 16M BIT D-RAM)**

| Pin No. | Pin Name | I/O | Description  |
|---------|----------|-----|--|
| 1       | OSCI     | I   | Resonator connection terminal for the system clock (22.5792MHz)                              |
| 2       | OSCO     | O   | Resonator connection terminal for the system clock (22.5792MHz)                              |
| 3       | VREFL    | O   | Reference voltage terminal connected to the capacitor (for the built-in D/A converter L-CH)  |
| 4       | AOUTL    | O   | Built-in D/A converter L-CH signal output  |
| 5       | AOUTR    | O   | Built-in D/A converter R-CH signal output  |
| 6       | VREFR    | O   | Reference voltage terminal connected to the capacitor (for the built-in D/A converter R-CH)  |
| 7       | ASYO     | O   | Playback EFM duplex signal output  |
| 8       | ASYI     | I   | Playback EFM comparator slice level input  |
| 9       | BIAS     | I   | Bias current input terminal for the playback EFM comparator                                  |
| 10      | RFI      | I   | Playback EFM RF signal input from the RF amplifier   |
| 11      | PCO      | O   | Phase comparison output terminal for the playback EFM system master PLL                      |
| 12      | FILI     | I   | Filter input terminal for the playback EFM system master PLL                                 |
| 13      | FILO     | O   | Filter output terminal for the playback EFM system master PLL                                |
| 14      | CLTV     | I   | Internal VCO control voltage input terminal for the playback EFM system master PLL           |
| 15      | PEAK     | I   | Peak hold signal input of the light amount signal (RF/ABCD) from the RF amplifier            |
| 16      | BOTM     | I   | Bottom hold signal input of the light amount signal (RF/ABCD) from the RF amplifier          |
| 17      | ABCD     | I   | Light amount signal (ABCD) input from the RF amplifier                                       |
| 18      | FE       | I   | Focus error signal input from the RF amplifier   |
| 19      | VC       | I   | Middle point voltage input from the RF amplifier   |
| 20      | ADIO     | O   | Monitor output terminal of A/D converter input signal Not used                               |
| 21      | ADRB     | I   | The lower limit voltage of A/D converter input terminal (connected to the ground)            |
| 22      | SE       | I   | Sled error signal input from the RF amplifier  |
| 23      | TE       | I   | Tracking error signal input from the RF amplifier  |
| 24      | AUX1     | I   | Auxiliary A/D input (fixed at "H" in this set)   |
| 25      | ADRT     | I   | The upper limit voltage of A/D converter input terminal (fixed at "H" in this set)           |
| 26      | DCHG     | I   | Connecting terminal with the analog power supply of low impedance (fixed at "H" in this set) |
| 27      | APC      | I   | Error signal input for the laser automatic power control (fixed at "H" in this set)          |
| 28      | ADFG     | I   | ADIP duplex FM signal (22.05±1kHz) input from the RF amplifier                               |
| 29      | APCREF   | O   | Reference PWM signal output for the laser automatic power control to the RF amplifier        |
| 30      | TRDR     | O   | Tracking servo drive PWM signal output (–) to the coil driver                                |
| 31      | TFDR     | O   | Tracking servo drive PWM signal output (+) to the coil driver                                |
| 32      | FFDR     | O   | Focus servo drive PWM signal output (+) to the coil driver                                   |
| 33      | FRDR     | O   | Focus servo drive PWM signal output (–) to the coil driver                                   |
| 34      | FS4      | O   | 176.4kHz clock signal output   |
| 35      | SFDR     | O   | Sled servo drive PWM signal output to the motor driver                                       |
| 36      | SPRD     | O   | Spindle motor drive control signal output (U) to the motor driver                            |
| 37      | SPFD     | O   | Spindle servo drive PWM signal output to the motor driver                                    |
| 38      | SPDV     | O   | Spindle motor drive control signal output (V) to the motor driver                            |
| 39      | SPDW     | O   | Spindle motor drive control signal output (W) to the motor driver                            |
| 40      | SPCU     | I   | Spindle motor drive comparison signal input (U) from the motor driver                        |
| 41      | SPCV     | I   | Spindle motor drive comparison signal input (V) from the motor driver                        |
| 42      | SPCW     | I   | Spindle motor drive comparison signal input (W) from the motor driver                        |
| 43      | SLDV     | O   | Sled motor drive control signal output (V) to the motor driver                               |
| 44      | SLDW     | O   | Sled motor drive control signal output (W) to the motor driver                               |
| 45      | SLCU     | I   | Sled motor drive comparison signal input (U) from the motor driver                           |

| Pin No.  | Pin Name      | I/O | Description  |
|----------|---------------|-----|--|
| 46       | SLCV          | I   | Sled motor drive comparison signal input (V) from the motor driver   |
| 47       | SLCW          | I   | Sled motor drive comparison signal input (W) from the motor driver   |
| 48       | SRDR          | O   | Sled motor drive control signal output (U) to the motor driver   |
| 49       | DIN           | I   | Digital audio signal input (fixed at “L” in this set)  |
| 50       | DADT          | O   | Audio data output terminal Not used  |
| 51       | ADDT          | I   | Data input from the external A/D converter (fixed at “L” in this set)                                      |
| 52       | KRCK          | O   | L/R sampling clock (44.1KHz) output to the external A/D converter Not used                                 |
| 53       | XBCK          | O   | Bit clock (2.8224MHz) output to the external A/D converter Not used  |
| 54       | FS256         | O   | 11.2896MHz clock output  |
| 55       | NC            | O   | Filter cutoff control signal output Not used   |
| 56       | NC            | I   | Clock input from the external VCO Not used   |
| 57       | LRCKI         | I   | Input terminal for the PCM data I/F/ ATRAC data I/F Not used   |
| 58       | XBCKI         | I   | Input terminal for the PCM data I/F/ ATRAC data I/F Not used   |
| 59       | DATAI         | I   | Input terminal for the PCM data I/F/ ATRAC data I/F Not used   |
| 60       | NC            | —   | Not used   |
| 61       | EXCS          | O   | Chip select signal output terminal for the external SDRAM Not used   |
| 62, 63   | NC            | —   | Not used   |
| 64 to 66 | MNT0 to 2     | O   | DSP monitor (0) to (2) output terminal Not used  |
| 67       | MNT3          | O   | DSP monitor (3) output terminal  |
| 68       | SENS          | O   | DSP internal status (DSP SENS monitor) signal output terminal Not used                                     |
| 69       | TX            | O   | Record data output enable signal output Not used   |
| 70       | RECP          | O   | Laser power changeover signal output Not used  |
| 71       | EFMO          | O   | EFM encode data output for the record to the REC driver  |
| 72       | TFMCK         | I   | FMCK signal input Not used   |
| 73       | OFTRK         | I/O | Tracking signal input/output Not used  |
| 74       | XSKH          | O   | L circuit signal output Not used   |
| 75       | XSKL          | O   | K-SHOCK circuit signal output Not used   |
| 76       | DCLSOUTL      | O   | PWM modulator signal output for the D class headphone amplifier Not used                                   |
| 77       | DCLSOUTR      | O   | PWM modulator signal output for the D class headphone amplifier Not used                                   |
| 78 to 85 | TD0 to 7      | —   | TigerI/F data 0 to 7 terminal Not used   |
| 86       | TREQ          | —   | TigerI/F REQUEST terminal Not used   |
| 87       | TACK          | —   | TigerI/F ACK terminal Not used   |
| 88       | PAUSE_KEY     | I   | Stop key detection input terminal from the switch & liquid crystal display module Not used                 |
| 89       | PROTECT       | I   | Detection signal input terminal of the record check claw from the protect detection switch<br>“H”: protect |
| 90       | OPT_DET       | I   | DIN plug detection signal input “H”: DIN plug detect Not used  |
| 91       | XJACK_DET     | I   | LINE IN plug detection signal input “L”: LINE or OPT plug detect Not used                                  |
| 92       | XMIC_DET      | I   | Microphone plug detection signal input “L”: microphone plug detect Not used                                |
| 93       | OPEN_CLOSE_SW | I   | Open/close detection switch of the upper panel input terminal “L”: when upper panel close                  |
| 94       | XCS_ADC       | O   | Chip select signal output to the A/D converter Not used  |
| 95       | XPD_ADC       | O   | Power supply control signal output to the A/D converter Not used   |
| 96       | CHG_CTL       | O   | Charge ON/OFF control signal output Not used   |
| 97       | LCD_RST       | O   | Reset control signal output to the liquid crystal display module   |
| 98       | XMUTE         | O   | Analog muting control signal output to the headphone amplifier “L”: muting ON Not used                     |
| 99       | XPATCH        | I   | Patch function detection terminal “L”: patch function (fixed at “L” in this set)                           |

| Pin No.  | Pin Name     | I/O | Description  |
|----------|--------------|-----|--|
| 100      | SI0          | I   | Serial data input from the nonvolatile memory  |
| 101      | SO0          | O   | Serial data output to the nonvolatile memory, liquid crystal display module and power control        |
| 102      | SCK0         | O   | Serial clock output to the nonvolatile memory, liquid crystal display module and power control       |
| 103      | XGUM_ON      | I   | Rechargeable battery detection switch input terminal “L”: rechargeable battery in detect<br>Not used |
| 104      | BEEP         | O   | Beep sound control signal output to the headphone amplifier Not used                                 |
| 105      | XOPT_CTL     | O   | Power supply ON/OFF control signal output for the DIN PD drive Not used                              |
| 106      | XHP_STBY     | O   | Power supply control signal output to the headphone amplifier Not used                               |
| 107      | AOUT_SEL     | O   | HP/LINE changeover signal output to the headphone amplifier Not used                                 |
| 108      | REC_OPR_LED  | O   | DOWNLOAD LED ON/OFF control signal output terminal   |
| 109      | MDVCC_CTL    | O   | Power supply control signal output for the OP modulation Not used                                    |
| 110      | OPVCC_CTL    | O   | Power supply control signal output for the OP laser Not used   |
| 111      | BATT_CTL     | O   | Control signal output for the voltage step up circuit in the external battery case Not used          |
| 112      | VREC_CTL     | O   | VREC voltage control signal output Not used  |
| 113      | XRST_CHG_IC  | O   | Reset signal output to the battery charge control IC Not used  |
| 114, 115 | PD_S0, 1     | O   | PD IC mode changeover signal output to the optical pick up   |
| 116      | LINK_MON     | O   | Linking area monitor signal output Not used  |
| 117      | PL_CTL       | O   | Plunger control signal output Not used   |
| 118      | GND_SW       | O   | Ground changeover switch control signal output terminal  |
| 119, 120 | NC           | O   | Not used   |
| 121      | SLD_MON      | I   | Sled servo monitor signal input  |
| 122      | NC           | O   | Not used   |
| 123      | SLEEP        | O   | System sleep control signal output to the power control  |
| 124      | FFCLR        | O   | Input latch output for the start switching to the power control                                      |
| 125      | CHGL_CTL1    | O   | Charge current limit ON/OFF control signal output at the time of adaptor use Not used                |
| 126      | CHGL_CTL2    | O   | Charge current limit value changeover control signal output at the time of adaptor use<br>Not used   |
| 127      | ORANGE_LED   | O   | Orange LED ON/OFF control signal output Not used   |
| 128      | CHG_LED      | O   | LED ON/OFF control signal output for CHG (charge display) Not used                                   |
| 129      | XTEST        | I   | Terminal for the test mode setting (normally open) “L”: test mode                                    |
| 130      | XRF_RST      | O   | Reset control signal output to the RF amplifier “L”: reset   |
| 131      | XEXT_PWR     | I   | External power supply (AC adaptor/charging stand) detection signal input Not used                    |
| 132      | XHOLD_SW     | I   | HOLD switch input terminal “L”: hold ON  |
| 133      | COUT_MON     | I   | Traverse count measurement monitor input   |
| 134      | CHG_ADSEL    | O   | A/D terminal of the battery charge control IC output selection signal output Not used                |
| 135      | CHGI_SEL     | O   | Charge/discharge changeover control signal output for the current sense amplifier Not used           |
| 136      | XDC_IN       | I   | DC plug detection signal input Not used  |
| 137      | SPDL_MON     | I   | Spindle servo monitor signal input   |
| 138      | XCS_PWR_IC   | O   | Chip select signal output to the power control   |
| 139, 140 | NC           | O   | Control signal output for the D class headphone amplifier Not used                                   |
| 141      | XCS_LCD      | O   | Chip select signal output to the liquid crystal display module                                       |
| 142      | LCD_STB      | O   | Strobe signal output to the liquid crystal display module  |
| 143      | XRST_MTR_DRV | O   | Reset control signal output to the motor driver “L”: reset   |
| 144      | XCS_NV       | O   | Chip select signal output to the nonvolatile memory  |
| 145      | CHG_PWM      | O   | Output voltage control signal output to the battery charge control Not used                          |

| Pin No.  | Pin Name     | I/O | Description  |
|----------|--------------|-----|--|
| 146      | VREC_PWM     | O   | PWM signal output for the power supply voltage control to the REC driver                   |
| 147      | VL_PWM       | O   | PWM signal output for the laser power supply voltage control to the power control Not used |
| 148      | NJM_XMUTE    | O   | Muting control signal terminal (NJM type made by JRC) Not used                             |
| 149      | D_VO_PWM     | O   | Power supply control signal output for the D class headphone amplifier Not used            |
| 150      | XCS_REC_DRV  | O   | Chip select signal output to the REC driver Not used                                       |
| 151      | T_MARK_SW    | I   | T MARK (track mark) switch input terminal “L”: track mark detection Not used               |
| 152      | JOG_A        | I   | Jog dial pulse input from the switch & liquid crystal display module Not used              |
| 153      | JOG_B        | I   | Jog dial pulse input from the switch & liquid crystal display module Not used              |
| 154, 155 | NC           | O   | Not used   |
| 156      | SSB_DATA     | I/O | SSB data input/output with the RF amplifier  |
| 157      | SSB_CLK      | O   | SSB clock output to the RF amplifier   |
| 158      | VBUS_DET     | I   | USB power supply voltage detection terminal  |
| 159      | VB_MON       | I   | Voltage monitor input terminal (A/D input) of the UNREG power supply                       |
| 160      | CHG_MON      | I   | Not used   |
| 161      | VREF_MON     | I   | Reference voltage monitor input (A/D input) from the RF amplifier                          |
| 162      | SET_KEY_1    | I   | Key input (A/D input) from the switch & liquid crystal display module                      |
| 163      | SET_KEY_2    | I   | Key input (A/D input) from the switch & liquid crystal display module                      |
| 164      | CRADLE_DET   | I   | USB cradle or battery case detection signal input Not used                                 |
| 165      | HIDC_MON     | I   | HIGH DC voltage monitor input terminal (A/D input)   |
| 166      | WK_DET       | I   | Set key WAKE detection signal input  |
| 167      | BATT_MON     | I   | External battery voltage monitor input Not used  |
| 168      | HALF_LOCK_SW | I   | Open button detection switch input (A/D input) “L” : the open button is pressed            |
| 169      | RMC_KEY      | I   | Key input (A/D input) from the remote commander  |
| 170      | JOG_PUSH     | I   | Jog dial push detection signal input Not used  |
| 171      | REC_KEY      | I   | PLAY_PAUSE_ENTER key input (A/D input)   |
| 172      | END_SEARCH   | I   | DOWNLOAD key input (A/D input) Not used  |
| 173      | RADIO_ON     | I   | RADIO ON detection signal input Not used   |
| 174      | RMC_DTCK     | I/O | TSB master data clock input/output or SSB data input/output                                |
| 175      | UDP          | I/O | USB data (+) input terminal  |
| 176      | UDM          | I/O | USB data (–) input terminal  |
| 177      | SUSPEND      | O   | USB suspend signal output Not used   |
| 178      | UPUEN        | O   | USB pull-up resistor connection control output terminal                                    |
| 179      | UOSCI        | I   | Resonator (48MHz) connection terminal for the USB oscillation circuit                      |
| 180      | UOSCO        | O   | Resonator (48MHz) connection terminal for the USB oscillation circuit                      |
| 181      | SI3          | I   | Not used   |
| 182      | SO3          | O   | Not used   |
| 183      | SCK3         | I/O | Not used   |
| 184      | MSIN         | I   | Not used   |
| 185      | MSOUT        | O   | Not used   |
| 186      | MSCK         | I/O | Not used   |
| 187      | RF_PWR       | O   | Not used   |
| 188      | LCD_PWR      | O   | Not used   |
| 189      | SP_AMP       | O   | Built-in speaker control signal output “H”: activate Not used                              |
| 190      | XHP_DET      | I   | Headphone jack detection signal input Not used   |
| 191      | SET_CODE0    | I   | Input terminal for the set (fixed at “L” in this set)                                      |
| 192      | SET_CODE1    | I   | Input terminal for the set (open in this set)  |

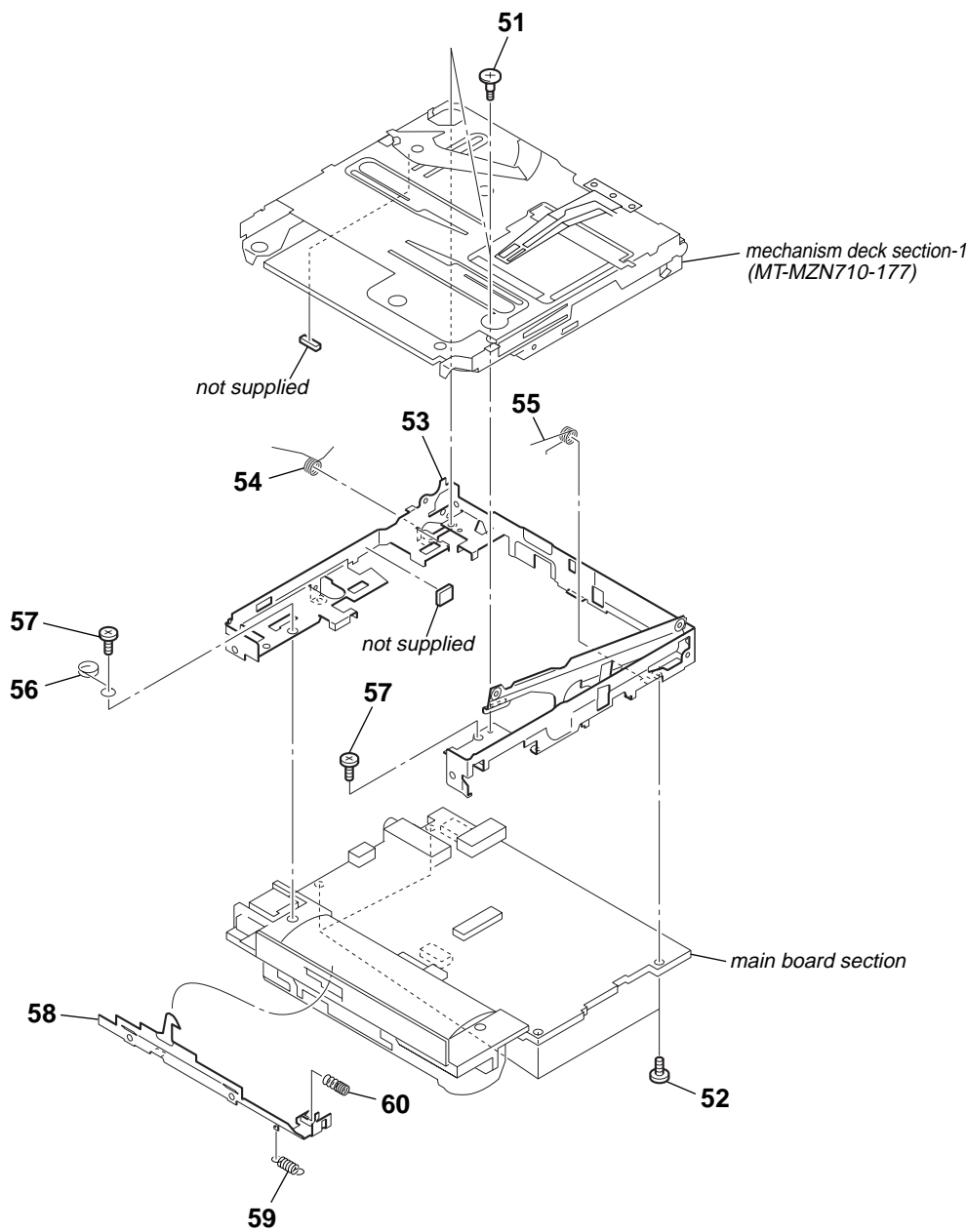


| Pin No.    | Pin Name    | I/O | Description  |
|------------|-------------|-----|--|
| 193        | SET_CODE2   | I   | Input terminal for the set (open in this set)  |
| 194        | SET_CODE3   | I   | Input terminal for the set (open in this set)  |
| 195, 196   | NC          | O   | Not used   |
| 197        | VBUS5V_DET  | I   | Not used   |
| 198        | LG_DCR_CTL  | O   | Not used   |
| 199        | MUTE        | O   | Analog muting control signal output to the headphone amplifier “H”: muting ON Not used |
| 200        | CLV_PWR_SEL | O   | CLV motor power supply selection control signal output Not used                        |
| 201        | CS_RTC      | O   | Chip select signal output to the real time clock Not used                              |
| 202 to 204 | MODE1 to 3  | O   | Power supply control signal output for the over write head to the REC driver           |
| 205, 206   | HD_CON_1, 2 | O   | Over write head control signal output to the REC driver                                |
| 207        | TAT         | I   | Not used   |
| 208        | TAN         | I   | Not used   |
| 209        | NAR         | I   | Not used   |
| 210        | IDO         | I   | Not used   |
| 211        | SAK         | O   | Not used   |
| 212        | XRST        | I   | System reset signal input from the power control “L”: reset                            |
| 213        | TRST        | I   | Terminal for the test mode setting (normally fixed at “L”)                             |
| 214, 215   | TEST0, 1    | I   | Input terminal for the main test (normally fixed at “L”)                               |
| 216 to 231 | D0 to 15    | —   | DRAM data0 to 15 terminal Not used   |
| 232 to 245 | A00 to 13   | —   | DRAM address0 to 13 terminal Not used  |
| 246        | XCAS        | —   | DRAM CAS terminal Not used   |
| 247        | XRAS        | —   | DRAM RAS terminal Not used   |
| 248        | XWE         | —   | DRAM write enable terminal Not used  |
| 249        | XCS         | —   | DRAM chip select terminal Not used   |
| 250        | CLK         | —   | DRAM clock terminal Not used   |
| 251        | CKE         | —   | DRAM clock enable terminal Not used  |
| 252        | UDQM        | —   | DRAM byte mask terminal Not used   |
| 253        | LDQM        | —   | DRAM byte mask terminal Not used   |
| 254        | DVDD0       | —   | Power supply terminal  |
| 255        | DVSS0       | —   | Ground terminal  |
| 256        | DVDD1       | —   | Power supply terminal  |
| 257        | DVSS1       | —   | Ground terminal  |
| 258        | DVDD2       | —   | Power supply terminal  |
| 259        | DVSS2       | —   | Ground terminal  |
| 260        | DVDD3       | —   | Power supply terminal  |
| 261        | DVSS3       | —   | Ground terminal  |
| 262        | DVDD4       | —   | Power supply terminal  |
| 263        | DVSS4       | —   | Ground terminal  |
| 264        | IFVDD0      | —   | Power supply terminal (for the microcomputer I/F block)                                |
| 265        | IFVSS0      | —   | Ground terminal (for the microcomputer I/F block)                                      |
| 266        | IFVDD1      | —   | Power supply terminal (for the microcomputer I/F block)                                |
| 267        | IFVSS1      | —   | Ground terminal (for the microcomputer I/F block)                                      |
| 268        | IFVDD2      | —   | Power supply terminal (for the microcomputer I/F block)                                |
| 269        | IFVSS2      | —   | Ground terminal (for the microcomputer I/F block)                                      |
| 270        | IFVDD3      | —   | Power supply terminal (for the microcomputer I/F block)                                |
| 271        | IFVSS3      | —   | Ground terminal (for the microcomputer I/F block)                                      |

| Pin No.    | Pin Name    | I/O | Description   |
|------------|-------------|-----|---|
| 272        | IFVDD4      | —   | Power supply terminal (for the microcomputer I/F block)     |
| 273        | IFVSS4      | —   | Ground terminal (for the microcomputer I/F block)           |
| 274        | AVDD        | —   | Power supply terminal (for the microcomputer analog)        |
| 275        | AVSS        | —   | Ground terminal (for the microcomputer analog)              |
| 276        | VDIOSC      | —   | Power supply terminal (for the OSC cell)                    |
| 277        | VSIOSC      | —   | Ground terminal (for the OSC cell)                          |
| 278        | DAVDD       | —   | Power supply terminal (for the built-in D/A converter)      |
| 279        | DAVSS       | —   | Ground terminal (for the built-in D/A converter)            |
| 280        | AVD1        | —   | Power supply terminal (for the DSP asymmetry system analog) |
| 281        | AVS1        | —   | Ground terminal (for the DSP asymmetry system analog)       |
| 282        | AVD2        | —   | Power supply terminal (for the DSP servo system analog)     |
| 283        | AVS2        | —   | Ground terminal (for the DSP servo system analog)           |
| 284        | TSMVDD      | —   | Power supply terminal (for the TSB master communication)    |
| 285        | TSLVDD      | —   | Power supply terminal (for the TSB slave I/F)               |
| 286        | DRAMVDD1    | —   | Power supply terminal (for DRAM)                            |
| 287        | DRAMVSS1    | —   | Ground terminal (for DRAM)                                  |
| 288        | DRAMVDD2    | —   | Power supply terminal (for DRAM)                            |
| 289        | DRAMVSS2    | —   | Ground terminal (for DRAM)                                  |
| 290        | ITO         | —   | Power supply terminal (for writing the flash memory)        |
| 291        | MITY        | —   | Ground terminal (for writing the flash memory)              |
| 292        | USBIFVDD    | —   | Power supply terminal (for USB I/F)                         |
| 293        | MVDD        | —   | Power supply terminal (for the microcomputer I/F block)     |
| 294        | USBOSCVDD   | —   | Power supply terminal (for the USB oscillation circuit)     |
| 295        | USBOSCVSS   | —   | Ground terminal (for the USB oscillation circuit)           |
| 296        | AVDPLL      | —   | Power supply terminal (for PLL)                             |
| 297        | AVSPLL      | —   | Ground terminal (for PLL)                                   |
| 298        | EVA         | I   | EVA terminal (fixed at “L” in this set)                     |
| 299        | FVDD0       | —   | Power supply terminal (for the built-in flash memory)       |
| 300        | FVSS0       | —   | Ground terminal (for the built-in flash memory)             |
| 301, 302   | DVDD5, 6    | —   | Power supply terminal                                       |
| 303, 304   | DRAMVDD3, 4 | —   | Power supply terminal (for DRAM)                            |
| 305 to 312 | MSAK        | —   | Not used  |

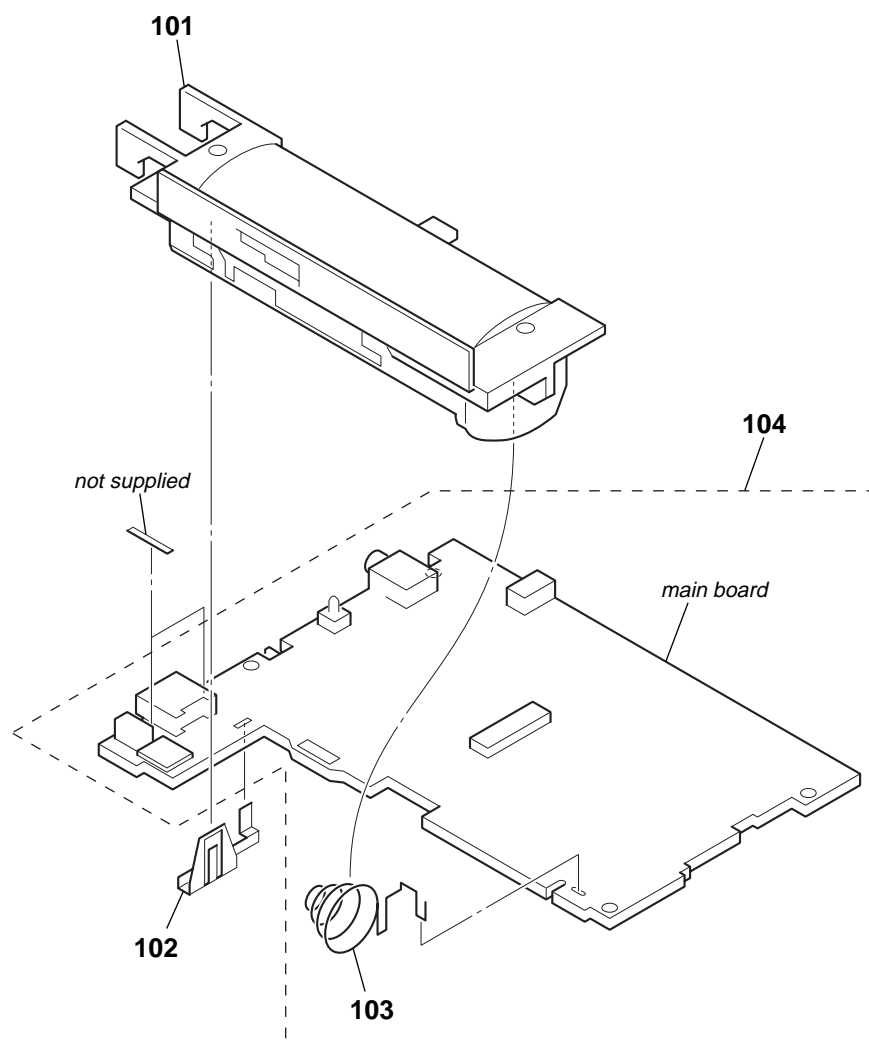


7-2. CHASSIS SECTION



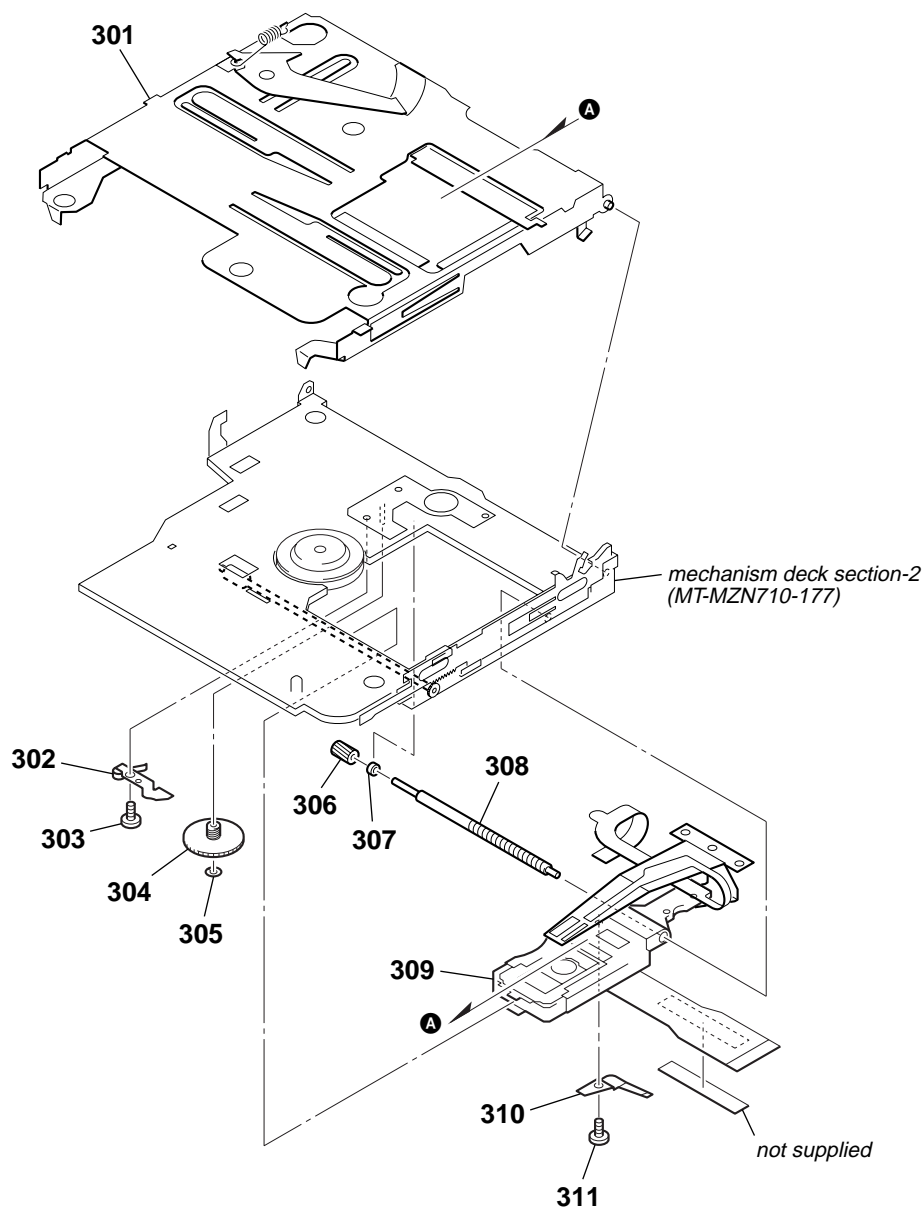
| Ref. No. | Part No.     | Description                | Remark | Ref. No. | Part No.     | Description                    | Remark |
|----------|--------------|----------------------------|--------|----------|--------------|--------------------------------|--------|
| 51       | 3-237-072-02 | SCREW (MD), STEP           |        | 56       | 3-250-692-01 | SPRING (USB), GROUND           |        |
| 52       | 3-238-876-07 | SCREW (M1.4), TOOTHED LOCK |        | 57       | 3-318-382-91 | SCREW (1.7X2.5), TAPPING       |        |
| 53       | X-3382-642-2 | CHASSIS (5207) ASSY, SET   |        | 58       | 3-246-245-01 | SLIDER, OPEN                   |        |
| 54       | 3-249-532-01 | SPRING (POP UP-L), TORSION |        | 59       | 3-237-082-01 | SPRING (LOCK), TENSION         |        |
| 55       | 3-237-083-01 | SPRING (POP UP-R), TORSION |        | 60       | 3-237-081-01 | SPRING (LIMITTER), COMPRESSION |        |

### 7-3. MAIN BOARD SECTION



| Ref. No. | Part No.     | Description                 | Remark | Ref. No. | Part No.     | Description                        | Remark |
|----------|--------------|-----------------------------|--------|----------|--------------|------------------------------------|--------|
| 101      | 3-246-247-03 | CASE, BATTERY               |        | * 104    | X-3383-984-1 | MAIN BOARD, COMPLETE (AEP, UK, EE) |        |
| 102      | 3-237-073-01 | TERMINAL BOARD (+), BATTERY |        | * 104    | X-3383-988-1 | MAIN BOARD, COMPLETE               |        |
| 103      | 3-237-074-11 | TERMINAL (-), BATTERY       |        |          |              | (EXCEPT AEP, UK, EE)               |        |

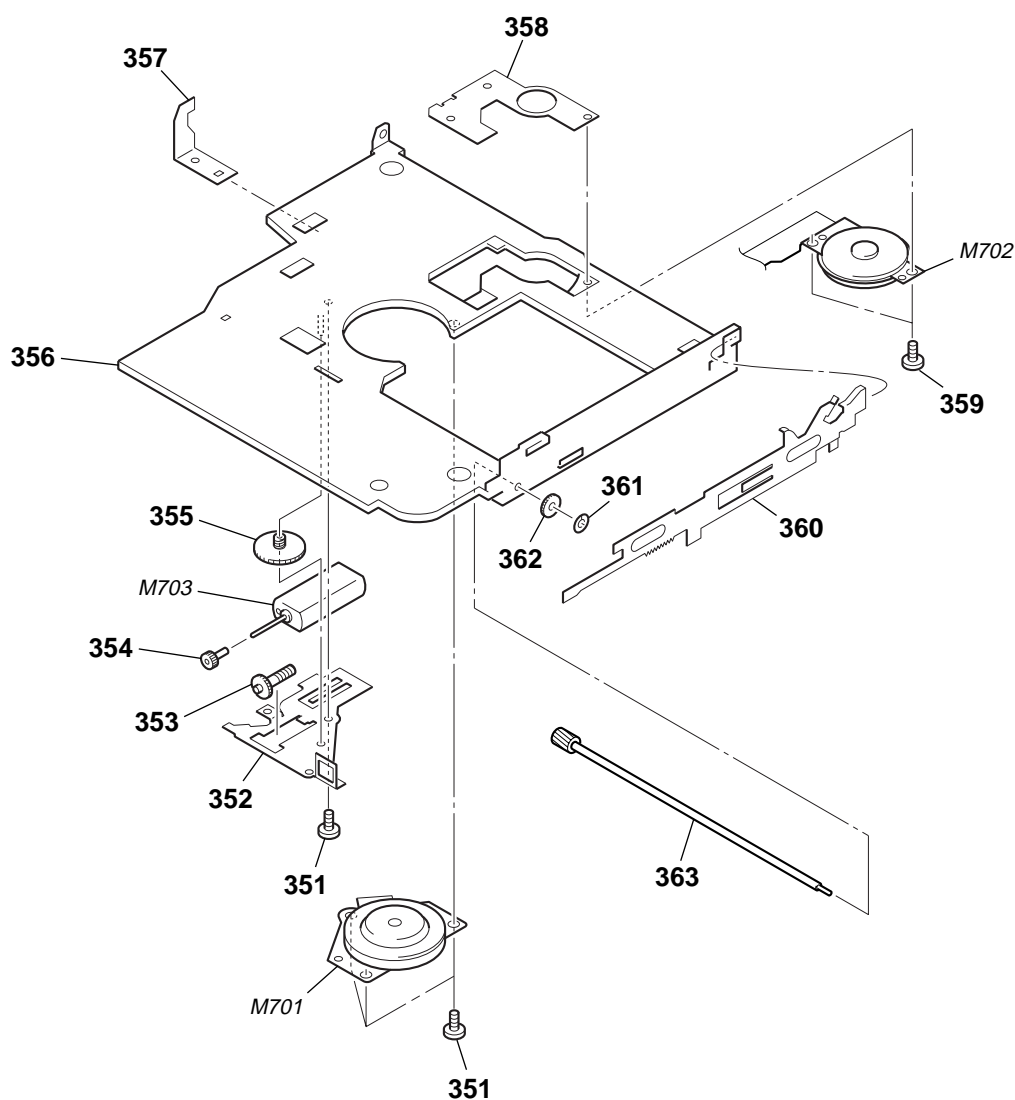
7-4. MECHANISM DECK SECTION-1  
(MT-MZN710-177)



|   |   |
|---|---|
| <p>The components identified by mark <math>\Delta</math> or dotted line with mark <math>\Delta</math> are critical for safety. Replace only with part number specified.</p> | <p>Les composants identifiés par une marque <math>\Delta</math> sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.</p> |
|---|---|

| Ref. No. | Part No.     | Description                      | Remark | Ref. No.     | Part No.     | Description                      | Remark |
|----------|--------------|----------------------------------|--------|--------------|--------------|----------------------------------|--------|
| 301      | X-3381-219-3 | HOLDER ASSY                      |        | 307          | 3-043-237-02 | BEARING (N)                      |        |
| 302      | 3-224-779-02 | SPRING, THRUST DETENT            |        | 308          | 4-222-203-02 | SCREW, LEAD                      |        |
| 303      | 3-225-996-01 | SCREW (M1.4) (EG), PRECISION PAN |        | $\Delta$ 309 | X-3382-953-1 | OP SERVICE ASSY (LCX-5R)         |        |
| 304      | 3-244-823-01 | GEAR (SA)                        |        | 310          | 3-049-336-03 | SPRING (S), RACK                 |        |
| 305      | 3-338-645-31 | WASHER (0.8-2.5)                 |        | 311          | 3-225-996-06 | SCREW (M1.4) (EG), PRECISION PAN |        |
| 306      | 4-222-208-01 | GEAR (SB)                        |        |              |              |                                  |        |

## 7-5. MECHANISM DECK SECTION-2 (MT-MZN710-177)



| Ref. No. | Part No.     | Description      | Remark | Ref. No. | Part No.     | Description                         | Remark |
|----------|--------------|------------------|--------|----------|--------------|-------------------------------------|--------|
| 351      | 3-225-278-12 | SCREW, TAPPING   |        | 359      | 3-225-996-07 | SCREW (M1.4) (EG), PRECISION PAN    |        |
| 352      | 3-235-838-02 | COVER, MOTOR     |        | 360      | 3-235-839-02 | LEVER (RACK)                        |        |
| 353      | 3-235-836-01 | GEAR (HB)        |        | 361      | 3-338-645-31 | WASHER (0.8-2.5)                    |        |
| 354      | 3-222-544-01 | GEAR (HA)        |        | 362      | 4-222-222-01 | GEAR (RACK)                         |        |
| 355      | 3-235-835-01 | GEAR (HC)        |        | 363      | A-3174-089-A | SHAFT BLOCK ASSY, SUB               |        |
| 356      | 3-235-834-11 | CHASSIS          |        | M701     | 8-835-744-21 | MOTOR, DC SSM18B/C-NP (SPINDLE)     |        |
| 357      | 3-235-830-02 | PLATE, RATCHET   |        | M702     | 1-763-727-11 | MOTOR, DC (SLED)                    |        |
| 358      | X-3379-529-4 | BASE ASSY, MOTOR |        | M703     | 1-763-400-21 | MOTOR, DC (OVER WRITE HEAD UP/DOWN) |        |

SECTION 8  
ELECTRICAL PARTS LIST

## NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS  
All resistors are in ohms.  
METAL: Metal-film resistor.  
METAL OXIDE: Metal oxide-film resistor.  
F: nonflammable
- Abbreviation  
AUS : Australian model      HK : Hong Kong model  
CND : Canadian model      KR : Korean model  
EE : East European model

- Items marked “\*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS  
In each case, u:  $\mu$ , for example:  
uA. . :  $\mu$ A. .      uPA. . :  $\mu$ PA. .  
uPB. . :  $\mu$ PB. .      uPC. . :  $\mu$ PC. .  
uPD. . :  $\mu$ PD. .
- CAPACITORS  
uF:  $\mu$ F
- COILS  
uH:  $\mu$ H

The components identified by mark  $\Delta$  or dotted line with mark  $\Delta$  are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque  $\Delta$  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

When indicating parts by reference number, please include the board.

| Ref. No. | Part No.     | Description                               | Remark | Ref. No. | Part No.     | Description               | Remark |
|----------|--------------|---|--------|----------|--------------|---------------------------|--------|
| *        | X-3383-984-1 | MAIN BOARD, COMPLETE (AEP, UK, EE)        |        | C533     | 1-164-943-11 | CERAMIC CHIP 0.01uF 10%   | 16V    |
| *        | X-3383-988-1 | MAIN BOARD, COMPLETE (EXCEPT AEP, UK, EE) |        | C534     | 1-164-941-11 | CERAMIC CHIP 0.0047uF 10% | 16V    |
|          |              | *****                                     |        | C535     | 1-125-837-11 | CERAMIC CHIP 1uF 10%      | 6.3V   |
|          |              |   |        | C536     | 1-125-777-11 | CERAMIC CHIP 0.1uF 10%    | 10V    |
|          | 3-237-074-11 | TERMINAL (-) , BATTERY                    |        | C537     | 1-107-819-11 | CERAMIC CHIP 0.022uF 10%  | 16V    |
|          |              | < CAPACITOR >                             |        | C538     | 1-107-819-11 | CERAMIC CHIP 0.022uF 10%  | 16V    |
| C101     | 1-125-838-11 | CERAMIC CHIP 2.2uF 10%                    | 6.3V   | C540     | 1-164-941-11 | CERAMIC CHIP 0.0047uF 10% | 16V    |
| C172     | 1-164-941-11 | CERAMIC CHIP 0.0047uF 10%                 | 16V    | C609     | 1-125-777-11 | CERAMIC CHIP 0.1uF 10%    | 10V    |
| C173     | 1-164-939-11 | CERAMIC CHIP 0.0022uF 10%                 | 50V    | C610     | 1-164-874-11 | CERAMIC CHIP 100PF 5%     | 50V    |
| C174     | 1-115-467-11 | CERAMIC CHIP 0.22uF 10%                   | 10V    | C611     | 1-164-874-11 | CERAMIC CHIP 100PF 5%     | 50V    |
| C175     | 1-126-246-11 | ELECT CHIP 220uF 20%                      | 4V     | C613     | 1-135-259-11 | TANTALUM CHIP 10uF 20%    | 6.3V   |
|          |              |   |        | C614     | 1-135-259-11 | TANTALUM CHIP 10uF 20%    | 6.3V   |
| C201     | 1-125-838-11 | CERAMIC CHIP 2.2uF 10%                    | 6.3V   | C615     | 1-125-777-11 | CERAMIC CHIP 0.1uF 10%    | 10V    |
| C272     | 1-164-941-11 | CERAMIC CHIP 0.0047uF 10%                 | 16V    | C616     | 1-125-777-11 | CERAMIC CHIP 0.1uF 10%    | 10V    |
| C273     | 1-164-939-11 | CERAMIC CHIP 0.0022uF 10%                 | 50V    | C617     | 1-125-777-11 | CERAMIC CHIP 0.1uF 10%    | 10V    |
| C274     | 1-115-467-11 | CERAMIC CHIP 0.22uF 10%                   | 10V    | C618     | 1-125-777-11 | CERAMIC CHIP 0.1uF 10%    | 10V    |
| C275     | 1-126-246-11 | ELECT CHIP 220uF 20%                      | 4V     | C621     | 1-164-943-11 | CERAMIC CHIP 0.01uF 10%   | 16V    |
|          |              |   |        | C622     | 1-125-777-11 | CERAMIC CHIP 0.1uF 10%    | 10V    |
| C303     | 1-125-837-11 | CERAMIC CHIP 1uF 10%                      | 6.3V   | C623     | 1-164-943-11 | CERAMIC CHIP 0.01uF 10%   | 16V    |
| C304     | 1-135-210-11 | TANTALUM CHIP 4.7uF 20%                   | 10V    |          |              |                           |        |
| C305     | 1-125-838-11 | CERAMIC CHIP 2.2uF 10%                    | 6.3V   | C624     | 1-164-874-11 | CERAMIC CHIP 100PF 5%     | 50V    |
| C306     | 1-124-778-00 | ELECT CHIP 22uF 20%                       | 6.3V   | C626     | 1-135-259-11 | TANTALUM CHIP 10uF 20%    | 6.3V   |
| C339     | 1-107-820-11 | CERAMIC CHIP 0.1uF                        | 16V    | C627     | 1-131-862-11 | TANTALUM CHIP 47uF 20%    | 4V     |
|          |              |   |        | C628     | 1-165-851-11 | TANTALUM CHIP 10uF 20%    | 6.3V   |
| C368     | 1-124-779-00 | ELECT CHIP 10uF 20%                       | 16V    | C630     | 1-125-777-11 | CERAMIC CHIP 0.1uF 10%    | 10V    |
| C372     | 1-107-820-11 | CERAMIC CHIP 0.1uF                        | 16V    |          |              |                           |        |
| C375     | 1-107-820-11 | CERAMIC CHIP 0.1uF                        | 16V    | C631     | 1-131-862-11 | TANTALUM CHIP 47uF 20%    | 4V     |
| C505     | 1-165-851-11 | TANTALUM CHIP 10uF 20%                    | 6.3V   | C632     | 1-137-760-11 | CAP-CHIP 100PF 5%         | 100V   |
| C506     | 1-164-943-11 | CERAMIC CHIP 0.01uF 10%                   | 16V    | C651     | 1-162-970-11 | CERAMIC CHIP 0.01uF 10%   | 25V    |
|          |              |   |        | C658     | 1-137-739-11 | TANTALUM CHIP 22uF 20%    | 6.3V   |
| C507     | 1-135-259-11 | TANTALUM CHIP 10uF 20%                    | 6.3V   | C659     | 1-164-937-11 | CERAMIC CHIP 0.001uF 10%  | 50V    |
| C509     | 1-107-820-11 | CERAMIC CHIP 0.1uF                        | 16V    |          |              |                           |        |
| C510     | 1-119-750-11 | TANTALUM CHIP 22uF 20%                    | 6.3V   | C660     | 1-164-939-11 | CERAMIC CHIP 0.0022uF 10% | 50V    |
| C511     | 1-164-850-11 | CERAMIC CHIP 10PF 0.5PF                   | 50V    | C661     | 1-137-934-11 | TANTALUM CHIP 47uF 20%    | 10V    |
| C512     | 1-164-850-11 | CERAMIC CHIP 10PF 0.5PF                   | 50V    | C671     | 1-125-777-11 | CERAMIC CHIP 0.1uF 10%    | 10V    |
|          |              |   |        | C673     | 1-125-777-11 | CERAMIC CHIP 0.1uF 10%    | 10V    |
| C513     | 1-107-819-11 | CERAMIC CHIP 0.022uF 10%                  | 16V    | C701     | 1-119-923-11 | CERAMIC CHIP 0.047uF 10%  | 10V    |
| C514     | 1-164-939-11 | CERAMIC CHIP 0.0022uF 10%                 | 50V    |          |              |                           |        |
| C517     | 1-164-943-11 | CERAMIC CHIP 0.01uF 10%                   | 16V    | C702     | 1-164-943-11 | CERAMIC CHIP 0.01uF 10%   | 16V    |
| C518     | 1-164-943-11 | CERAMIC CHIP 0.01uF 10%                   | 16V    | C703     | 1-119-923-11 | CERAMIC CHIP 0.047uF 10%  | 10V    |
| C519     | 1-107-820-11 | CERAMIC CHIP 0.1uF                        | 16V    | C704     | 1-164-943-11 | CERAMIC CHIP 0.01uF 10%   | 16V    |
|          |              |   |        | C705     | 1-119-923-11 | CERAMIC CHIP 0.047uF 10%  | 10V    |
| C520     | 1-107-820-11 | CERAMIC CHIP 0.1uF                        | 16V    | C706     | 1-164-943-11 | CERAMIC CHIP 0.01uF 10%   | 16V    |
| C522     | 1-107-820-11 | CERAMIC CHIP 0.1uF                        | 16V    |          |              |                           |        |
| C523     | 1-164-939-11 | CERAMIC CHIP 0.0022uF 10%                 | 50V    | C708     | 1-107-819-11 | CERAMIC CHIP 0.022uF 10%  | 16V    |
| C524     | 1-125-837-11 | CERAMIC CHIP 1uF 10%                      | 6.3V   | C710     | 1-107-819-11 | CERAMIC CHIP 0.022uF 10%  | 16V    |
| C526     | 1-119-923-11 | CERAMIC CHIP 0.047uF 10%                  | 10V    | C712     | 1-107-819-11 | CERAMIC CHIP 0.022uF 10%  | 16V    |
|          |              |   |        | C715     | 1-107-820-11 | CERAMIC CHIP 0.1uF        | 16V    |
| C527     | 1-164-941-11 | CERAMIC CHIP 0.0047uF 10%                 | 16V    | C716     | 1-107-820-11 | CERAMIC CHIP 0.1uF        | 16V    |



| Ref. No. | Part No.     | Description   | Remark   |        |      | Ref. No. | Part No.     | Description                   | Remark  |     |                      |
|----------|--------------|---------------|----------|--------|------|----------|--------------|-------------------------------|---------|-----|----------------------|
| C718     | 1-107-820-11 | CERAMIC CHIP  | 0.1uF    |        | 16V  | C932     | 1-125-838-11 | CERAMIC CHIP                  | 2.2uF   | 10% | 6.3V                 |
| C719     | 1-107-820-11 | CERAMIC CHIP  | 0.1uF    |        | 16V  | C933     | 1-164-943-11 | CERAMIC CHIP                  | 0.01uF  | 10% | 16V                  |
| C720     | 1-107-820-11 | CERAMIC CHIP  | 0.1uF    |        | 16V  | C957     | 1-107-820-11 | CERAMIC CHIP                  | 0.1uF   |     | 16V                  |
| C721     | 1-107-820-11 | CERAMIC CHIP  | 0.1uF    |        | 16V  | C959     | 1-107-820-11 | CERAMIC CHIP                  | 0.1uF   |     | 16V                  |
| C801     | 1-117-720-11 | CERAMIC CHIP  | 4.7uF    |        | 10V  | C960     | 1-107-820-11 | CERAMIC CHIP                  | 0.1uF   |     | 16V                  |
| C802     | 1-125-777-11 | CERAMIC CHIP  | 0.1uF    | 10%    | 10V  | C962     | 1-107-820-11 | CERAMIC CHIP                  | 0.1uF   |     | 16V                  |
| C803     | 1-107-820-11 | CERAMIC CHIP  | 0.1uF    |        | 16V  | C962     | 1-164-937-11 | CERAMIC CHIP                  | 0.001uF | 10% | 50V                  |
| C805     | 1-165-851-11 | TANTALUM CHIP | 10uF     | 20%    | 6.3V |          |              |                               |         |     | (AEP, UK, EE)        |
| C808     | 1-164-937-11 | CERAMIC CHIP  | 0.001uF  | 10%    | 50V  | C964     | 1-164-943-11 | CERAMIC CHIP                  | 0.01uF  | 10% | 16V                  |
| C811     | 1-125-837-11 | CERAMIC CHIP  | 1uF      | 10%    | 6.3V |          |              |                               |         |     | (EXCEPT AEP, UK, EE) |
| C812     | 1-125-837-11 | CERAMIC CHIP  | 1uF      | 10%    | 6.3V | C967     | 1-126-246-11 | ELECT CHIP                    | 220uF   | 20% | 4V                   |
| C813     | 1-164-943-11 | CERAMIC CHIP  | 0.01uF   | 10%    | 16V  | C968     | 1-126-246-11 | ELECT CHIP                    | 220uF   | 20% | 4V                   |
| C814     | 1-125-891-11 | CERAMIC CHIP  | 0.47uF   | 10%    | 10V  | C971     | 1-126-246-11 | ELECT CHIP                    | 220uF   | 20% | 4V                   |
| C815     | 1-164-935-11 | CERAMIC CHIP  | 470PF    | 10%    | 50V  | C973     | 1-124-778-00 | ELECT CHIP                    | 22uF    | 20% | 6.3V                 |
| C817     | 1-125-837-11 | CERAMIC CHIP  | 1uF      | 10%    | 6.3V | C975     | 1-126-607-11 | ELECT CHIP                    | 47uF    | 20% | 4V                   |
| C818     | 1-125-777-11 | CERAMIC CHIP  | 0.1uF    | 10%    | 10V  | C976     | 1-125-837-11 | CERAMIC CHIP                  | 1uF     | 10% | 6.3V                 |
| C819     | 1-125-777-11 | CERAMIC CHIP  | 0.1uF    | 10%    | 10V  | C977     | 1-162-970-11 | CERAMIC CHIP                  | 0.01uF  | 10% | 25V                  |
| C820     | 1-164-943-11 | CERAMIC CHIP  | 0.01uF   | 10%    | 16V  | C978     | 1-162-970-11 | CERAMIC CHIP                  | 0.01uF  | 10% | 25V                  |
| C821     | 1-107-819-11 | CERAMIC CHIP  | 0.022uF  | 10%    | 16V  | C979     | 1-162-970-11 | CERAMIC CHIP                  | 0.01uF  | 10% | 25V                  |
| C822     | 1-164-943-11 | CERAMIC CHIP  | 0.01uF   | 10%    | 16V  | C984     | 1-164-937-11 | CERAMIC CHIP                  | 0.001uF | 10% | 50V                  |
| C823     | 1-107-819-11 | CERAMIC CHIP  | 0.022uF  | 10%    | 16V  | C985     | 1-125-777-11 | CERAMIC CHIP                  | 0.1uF   | 10% | 10V                  |
| C826     | 1-164-943-11 | CERAMIC CHIP  | 0.01uF   | 10%    | 16V  |          |              | < CONNECTOR >                 |         |     |                      |
| C829     | 1-125-777-11 | CERAMIC CHIP  | 0.1uF    | 10%    | 10V  | CN501    | 1-573-360-21 | CONNECTOR, FFC/FPC 20P        |         |     |                      |
| C830     | 1-126-209-11 | ELECT CHIP    | 100uF    | 20%    | 4V   | CN651    | 1-816-947-21 | CONNECTOR (SQUARE TYPE) (USB) |         |     |                      |
| C831     | 1-107-820-11 | CERAMIC CHIP  | 0.1uF    |        | 16V  | CN701    | 1-573-350-11 | CONNECTOR, FFC/FPC 10P        |         |     |                      |
| C832     | 1-126-209-11 | ELECT CHIP    | 100uF    | 20%    | 4V   | CN872    | 1-573-354-11 | CONNECTOR, FFC/FPC 14P        |         |     |                      |
| C833     | 1-124-778-00 | ELECT CHIP    | 22uF     | 20%    | 6.3V |          |              | < DIODE >                     |         |     |                      |
| C835     | 1-119-923-11 | CERAMIC CHIP  | 0.047uF  | 10%    | 10V  | D171     | 8-719-056-72 | DIODE 02DZ2.4-Z (TPH3)        |         |     |                      |
| C837     | 1-164-840-11 | CERAMIC CHIP  | 1PF      | 0.25PF | 50V  | D271     | 8-719-056-72 | DIODE 02DZ2.4-Z (TPH3)        |         |     |                      |
| C838     | 1-164-840-11 | CERAMIC CHIP  | 1PF      | 0.25PF | 50V  | D371     | 8-719-056-72 | DIODE 02DZ2.4-Z (TPH3)        |         |     |                      |
| C841     | 1-164-937-11 | CERAMIC CHIP  | 0.001uF  | 10%    | 50V  | D603     | 8-719-081-33 | DIODE MA2YD1500LS0            |         |     |                      |
| C851     | 1-107-820-11 | CERAMIC CHIP  | 0.1uF    |        | 16V  | D605     | 6-500-483-01 | DIODE MA22D2800LS0            |         |     |                      |
| C852     | 1-125-777-11 | CERAMIC CHIP  | 0.1uF    | 10%    | 10V  | D606     | 8-719-081-35 | DIODE MA2YD1700LS0            |         |     |                      |
| C855     | 1-164-943-11 | CERAMIC CHIP  | 0.01uF   | 10%    | 16V  | D607     | 8-719-081-35 | DIODE MA2YD1700LS0            |         |     |                      |
| C856     | 1-164-943-11 | CERAMIC CHIP  | 0.01uF   | 10%    | 16V  | D652     | 8-719-081-73 | DIODE DF3A6.8FE (TPL3)        |         |     |                      |
| C871     | 1-107-826-11 | CERAMIC CHIP  | 0.1uF    | 10%    | 16V  | D653     | 6-500-483-01 | DIODE MA22D2800LS0            |         |     |                      |
| C873     | 1-107-820-11 | CERAMIC CHIP  | 0.1uF    |        | 16V  | D654     | 8-719-421-27 | DIODE MA728-TX                |         |     |                      |
| C880     | 1-164-943-11 | CERAMIC CHIP  | 0.01uF   | 10%    | 16V  | D801     | 8-719-017-58 | DIODE MA8068-TX               |         |     |                      |
| C901     | 1-164-937-11 | CERAMIC CHIP  | 0.001uF  | 10%    | 50V  | D802     | 8-719-017-58 | DIODE MA8068-TX               |         |     |                      |
| C905     | 1-164-943-11 | CERAMIC CHIP  | 0.01uF   | 10%    | 16V  | D901     | 8-719-420-51 | DIODE MA729-TX                |         |     |                      |
| C906     | 1-164-937-11 | CERAMIC CHIP  | 0.001uF  | 10%    | 50V  | D902     | 6-500-483-01 | DIODE MA22D2800LS0            |         |     |                      |
| C907     | 1-125-889-11 | CERAMIC CHIP  | 2.2uF    | 10%    | 10V  | D903     | 6-500-483-01 | DIODE MA22D2800LS0            |         |     |                      |
| C911     | 1-164-943-11 | CERAMIC CHIP  | 0.01uF   | 10%    | 16V  | D953     | 8-719-081-33 | DIODE MA2YD1500LS0            |         |     |                      |
| C912     | 1-164-943-11 | CERAMIC CHIP  | 0.01uF   | 10%    | 16V  | D955     | 8-719-081-33 | DIODE MA2YD1500LS0            |         |     |                      |
| C913     | 1-164-943-11 | CERAMIC CHIP  | 0.01uF   | 10%    | 16V  | D958     | 8-719-017-58 | DIODE MA8068-TX               |         |     |                      |
| C914     | 1-164-937-11 | CERAMIC CHIP  | 0.001uF  | 10%    | 50V  | D961     | 8-719-017-58 | DIODE MA8068-TX               |         |     |                      |
| C916     | 1-137-739-11 | TANTALUM CHIP | 22uF     | 20%    | 6.3V |          |              | < SHORT/FERRITE BEAD >        |         |     |                      |
| C918     | 1-107-820-11 | CERAMIC CHIP  | 0.1uF    |        | 16V  | FB651    | 1-216-864-11 | SHORT CHIP                    | 0       |     |                      |
| C920     | 1-128-964-11 | TANTALUM CHIP | 100uF    | 20%    | 6.3V | FB652    | 1-216-864-11 | SHORT CHIP                    | 0       |     |                      |
| C922     | 1-125-777-11 | CERAMIC CHIP  | 0.1uF    | 10%    | 10V  | FB801    | 1-216-864-11 | SHORT CHIP                    | 0       |     |                      |
| C924     | 1-128-964-11 | TANTALUM CHIP | 100uF    | 20%    | 6.3V | FB802    | 1-216-864-11 | SHORT CHIP                    | 0       |     |                      |
| C925     | 1-164-941-11 | CERAMIC CHIP  | 0.0047uF | 10%    | 16V  | FB803    | 1-216-864-11 | SHORT CHIP                    | 0       |     |                      |
| C926     | 1-107-820-11 | CERAMIC CHIP  | 0.1uF    |        | 16V  | FB805    | 1-216-864-11 | SHORT CHIP                    | 0       |     |                      |
| C928     | 1-164-939-11 | CERAMIC CHIP  | 0.0022uF | 10%    | 50V  | FB806    | 1-216-864-11 | SHORT CHIP                    | 0       |     |                      |
| C929     | 1-164-943-11 | CERAMIC CHIP  | 0.01uF   | 10%    | 16V  | FB844    | 1-216-864-11 | SHORT CHIP                    | 0       |     |                      |
| C930     | 1-164-939-11 | CERAMIC CHIP  | 0.0022uF | 10%    | 50V  |          |              |                               |         |     |                      |
| C931     | 1-164-939-11 | CERAMIC CHIP  | 0.0022uF | 10%    | 50V  |          |              |                               |         |     |                      |

**MAIN**

| Ref. No.        | Part No.       | Description                      | Remark                    |
|-----------------|----------------|----------------------------------|---------------------------|
| FB901           | 1-400-050-11   | FERRITE                          | 0uH                       |
| < IC >          |                |                                  |                           |
| IC301           | 8-759-598-15   | IC TA2131FL (EL)                 |                           |
| @ IC501         | 6-703-946-01   | IC SN761058AZQLR                 |                           |
| IC601           | 6-702-782-01   | IC XPC18A22AEPR2                 |                           |
| IC651           | 8-759-569-80   | IC XC6367A331MR                  |                           |
| IC701           | 6-702-786-01   | IC SC111258EPR2                  |                           |
| @ IC801         | 8-753-001-00   | IC CXD2680-207GA                 |                           |
| IC852           | (not supplied) | IC AK6417AL-L                    |                           |
| IC901           | 6-702-865-01   | IC SC901580EPR2                  |                           |
| < JACK >        |                |                                  |                           |
| J304            | 1-794-084-31   | JACK (○)                         |                           |
| J951            | 1-785-383-21   | JACK, DC (POLARITY UNIFIED TYPE) | (DC IN 3V)                |
| < COIL >        |                |                                  |                           |
| L503            | 1-414-398-11   | INDUCTOR                         | 10uH                      |
| L504            | 1-414-398-11   | INDUCTOR                         | 10uH                      |
| L603            | 1-414-398-11   | INDUCTOR                         | 10uH                      |
| L604            | 1-424-979-21   | INDUCTOR                         | 10uH                      |
| L651            | 1-416-669-11   | INDUCTOR                         | 22uH                      |
| L802            | 1-414-398-11   | INDUCTOR                         | 10uH                      |
| L803            | 1-414-398-11   | INDUCTOR                         | 10uH                      |
| L901            | 1-456-219-21   | INDUCTOR                         | 220uH                     |
| L902            | 1-419-881-11   | INDUCTOR                         | 47uH                      |
| L903            | 1-414-398-11   | INDUCTOR                         | 10uH                      |
| L904            | 1-416-669-11   | INDUCTOR                         | 22uH                      |
| < LINE FILTER > |                |                                  |                           |
| LF951           | 1-416-405-21   | FERRITE                          | 0uH                       |
| LF952           | 1-416-405-21   | FERRITE                          | 0uH                       |
| < TRANSISTOR >  |                |                                  |                           |
| Q301            | 8-729-037-52   | TRANSISTOR                       | 2SC4738F-Y/GR (TPL3)      |
| Q501            | 8-729-922-10   | TRANSISTOR                       | 2SA1577-T106-QR           |
| Q602            | 6-550-510-01   | TRANSISTOR                       | MMJT9435T1                |
| Q603            | 8-729-053-71   | FET                              | TS8K1TB                   |
| Q604            | 6-550-356-01   | FET                              | MCH6616-TL-E              |
| Q605            | 6-550-357-01   | FET                              | CPH5614-TL-E              |
| Q651            | 8-729-047-48   | TRANSISTOR                       | UMD12N-TR                 |
| Q652            | 8-729-053-03   | FET                              | XP151A12A2MR              |
| Q653            | 8-729-041-51   | TRANSISTOR                       | FMMT617TA                 |
| Q654            | 8-729-037-63   | TRANSISTOR                       | UN9115J-(TX).SO           |
| Q672            | 8-729-037-71   | TRANSISTOR                       | UN9210J-(TX).SO           |
| Q871            | 8-729-429-44   | TRANSISTOR                       | XP1501-TXE                |
| Q872            | 8-729-427-74   | TRANSISTOR                       | XP4601-TXE                |
| Q951            | 6-550-353-01   | FET                              | SI1410EDH-T1              |
| < RESISTOR >    |                |                                  |                           |
| R101            | 1-218-965-11   | RES-CHIP                         | 10K 5% 1/16W              |
| R102            | 1-218-965-11   | RES-CHIP                         | 10K 5% 1/16W              |
| R105            | 1-218-965-11   | RES-CHIP                         | 10K 5% 1/16W              |
| R109            | 1-218-990-11   | SHORT CHIP                       | 0 (EXCEPT AEP, UK, EE)    |
| R109            | 1-218-933-11   | RES-CHIP                         | 22 5% 1/16W (AEP, UK, EE) |

| Ref. No. | Part No.     | Description | Remark                    |
|----------|--------------|-------------|---------------------------|
| R110     | 1-218-937-11 | RES-CHIP    | 47 5% 1/16W (AEP, UK, EE) |
| R175     | 1-208-635-11 | RES-CHIP    | 10 5% 1/16W               |
| R176     | 1-218-961-11 | RES-CHIP    | 4.7K 5% 1/16W             |
| R201     | 1-218-965-11 | RES-CHIP    | 10K 5% 1/16W              |
| R202     | 1-218-965-11 | RES-CHIP    | 10K 5% 1/16W              |
| R205     | 1-218-965-11 | RES-CHIP    | 10K 5% 1/16W              |
| R209     | 1-218-990-11 | SHORT CHIP  | 0 (EXCEPT AEP, UK, EE)    |
| R209     | 1-218-933-11 | RES-CHIP    | 22 5% 1/16W (AEP, UK, EE) |
| R210     | 1-218-937-11 | RES-CHIP    | 47 5% 1/16W (AEP, UK, EE) |
| R275     | 1-208-635-11 | RES-CHIP    | 10 5% 1/16W               |
| R276     | 1-218-961-11 | RES-CHIP    | 4.7K 5% 1/16W             |
| R301     | 1-218-957-11 | RES-CHIP    | 2.2K 5% 1/16W             |
| R302     | 1-218-961-11 | RES-CHIP    | 4.7K 5% 1/16W             |
| R303     | 1-218-981-11 | RES-CHIP    | 220K 5% 1/16W             |
| R304     | 1-218-937-11 | RES-CHIP    | 47 5% 1/16W               |
| R312     | 1-218-989-11 | RES-CHIP    | 1M 5% 1/16W               |
| R501     | 1-218-977-11 | RES-CHIP    | 100K 5% 1/16W             |
| R502     | 1-218-446-11 | METAL CHIP  | 1 5% 1/10W                |
| R503     | 1-218-446-11 | METAL CHIP  | 1 5% 1/10W                |
| R504     | 1-218-965-11 | RES-CHIP    | 10K 5% 1/16W              |
| R505     | 1-218-965-11 | RES-CHIP    | 10K 5% 1/16W              |
| R507     | 1-208-707-11 | METAL CHIP  | 10K 0.5% 1/16W            |
| R508     | 1-208-683-11 | METAL CHIP  | 1K 0.5% 1/16W             |
| R509     | 1-218-990-11 | SHORT CHIP  | 0                         |
| R511     | 1-218-990-11 | SHORT CHIP  | 0                         |
| R605     | 1-218-945-11 | RES-CHIP    | 220 5% 1/16W              |
| R606     | 1-216-797-11 | METAL CHIP  | 10 5% 1/10W               |
| R608     | 1-218-965-11 | RES-CHIP    | 10K 5% 1/16W              |
| R609     | 1-218-965-11 | RES-CHIP    | 10K 5% 1/16W              |
| R612     | 1-216-789-11 | METAL CHIP  | 2.2 5% 1/10W              |
| R613     | 1-216-789-11 | METAL CHIP  | 2.2 5% 1/10W              |
| R614     | 1-218-985-11 | RES-CHIP    | 470K 5% 1/16W             |
| R616     | 1-218-957-11 | RES-CHIP    | 2.2K 5% 1/16W             |
| R617     | 1-218-965-11 | RES-CHIP    | 10K 5% 1/16W              |
| R619     | 1-218-969-11 | RES-CHIP    | 22K 5% 1/16W              |
| R620     | 1-218-981-11 | RES-CHIP    | 220K 5% 1/16W             |
| R621     | 1-218-977-11 | RES-CHIP    | 100K 5% 1/16W             |
| R654     | 1-218-990-11 | SHORT CHIP  | 0                         |
| R655     | 1-218-953-11 | RES-CHIP    | 1K 5% 1/16W               |
| R656     | 1-218-985-11 | RES-CHIP    | 470K 5% 1/16W             |
| R657     | 1-218-990-11 | SHORT CHIP  | 0                         |
| R658     | 1-218-961-11 | RES-CHIP    | 4.7K 5% 1/16W             |
| R659     | 1-218-957-11 | RES-CHIP    | 2.2K 5% 1/16W             |
| R660     | 1-218-941-11 | RES-CHIP    | 100 5% 1/16W              |
| R661     | 1-218-973-11 | RES-CHIP    | 47K 5% 1/16W              |
| R662     | 1-216-864-11 | SHORT CHIP  | 0                         |
| R663     | 1-218-990-11 | SHORT CHIP  | 0                         |
| R671     | 1-220-804-11 | RES-CHIP    | 2.2M 5% 1/16W             |
| R672     | 1-218-977-11 | RES-CHIP    | 100K 5% 1/16W             |
| R674     | 1-216-864-11 | SHORT CHIP  | 0                         |
| R701     | 1-218-957-11 | RES-CHIP    | 2.2K 5% 1/16W             |
| R702     | 1-218-957-11 | RES-CHIP    | 2.2K 5% 1/16W             |
| R703     | 1-218-957-11 | RES-CHIP    | 2.2K 5% 1/16W             |
| R704     | 1-218-965-11 | RES-CHIP    | 10K 5% 1/16W              |
| R705     | 1-218-965-11 | RES-CHIP    | 10K 5% 1/16W              |

@ Replacement of IC501 (SN761058AZQLR) and IC801 (CXD2680-207GA) used in this set requires a special tool.

When IC852 is damaged, replace the MAIN board.

| Ref. No. | Part No.     | Description | Remark          | Ref. No. | Part No.     | Description                           | Remark               |
|----------|--------------|-------------|-----------------|----------|--------------|---------------------------------------|----------------------|
| R706     | 1-218-965-11 | RES-CHIP    | 10K 5% 1/16W    | R905     | 1-208-707-11 | METAL CHIP                            | 10K 0.5% 1/16W       |
| R803     | 1-208-635-11 | RES-CHIP    | 10 5% 1/16W     | R907     | 1-218-985-11 | RES-CHIP                              | 470K 5% 1/16W        |
| R804     | 1-208-635-11 | RES-CHIP    | 10 5% 1/16W     |          |              |                                       |                      |
| R805     | 1-218-990-11 | SHORT CHIP  | 0               | R908     | 1-218-969-11 | RES-CHIP                              | 22K 5% 1/16W         |
| R806     | 1-218-990-11 | SHORT CHIP  | 0               | R912     | 1-218-977-11 | RES-CHIP                              | 100K 5% 1/16W        |
|          |              |             |                 | R914     | 1-218-973-11 | RES-CHIP                              | 47K 5% 1/16W         |
| R807     | 1-218-965-11 | RES-CHIP    | 10K 5% 1/16W    | R915     | 1-218-981-11 | RES-CHIP                              | 220K 5% 1/16W        |
| R808     | 1-218-965-11 | RES-CHIP    | 10K 5% 1/16W    | R917     | 1-218-985-11 | RES-CHIP                              | 470K 5% 1/16W        |
| R809     | 1-218-977-11 | RES-CHIP    | 100K 5% 1/16W   |          |              |                                       |                      |
| R811     | 1-218-981-11 | RES-CHIP    | 220K 5% 1/16W   | R919     | 1-218-973-11 | RES-CHIP                              | 47K 5% 1/16W         |
| R813     | 1-218-953-11 | RES-CHIP    | 1K 5% 1/16W     | R923     | 1-218-977-11 | RES-CHIP                              | 100K 5% 1/16W        |
|          |              |             |                 | R925     | 1-218-990-11 | SHORT CHIP                            | 0                    |
| R814     | 1-218-957-11 | RES-CHIP    | 2.2K 5% 1/16W   | R926     | 1-218-969-11 | RES-CHIP                              | 22K 5% 1/16W         |
| R815     | 1-218-953-11 | RES-CHIP    | 1K 5% 1/16W     | R965     | 1-218-969-11 | RES-CHIP                              | 22K 5% 1/16W         |
| R816     | 1-218-945-11 | RES-CHIP    | 220 5% 1/16W    |          |              |                                       | (EXCEPT AEP, UK, EE) |
| R817     | 1-220-804-11 | RES-CHIP    | 2.2M 5% 1/16W   |          |              |                                       |                      |
| R818     | 1-218-989-11 | RES-CHIP    | 1M 5% 1/16W     | R965     | 1-218-977-11 | RES-CHIP                              | 100K 5% 1/16W        |
|          |              |             |                 |          |              |                                       | (AEP, UK, EE)        |
| R819     | 1-208-691-11 | METAL CHIP  | 2.2K 0.5% 1/16W | R967     | 1-218-989-11 | RES-CHIP                              | 1M 5% 1/16W          |
| R820     | 1-208-691-11 | METAL CHIP  | 2.2K 0.5% 1/16W | R974     | 1-218-961-11 | RES-CHIP                              | 4.7K 5% 1/16W        |
| R821     | 1-218-973-11 | RES-CHIP    | 47K 5% 1/16W    |          |              |                                       | (EXCEPT AEP, UK, EE) |
| R822     | 1-218-981-11 | RES-CHIP    | 220K 5% 1/16W   | R974     | 1-218-969-11 | RES-CHIP                              | 22K 5% 1/16W         |
| R823     | 1-218-933-11 | RES-CHIP    | 22 5% 1/16W     |          |              |                                       | (AEP, UK, EE)        |
|          |              |             |                 |          |              |                                       |                      |
| R824     | 1-218-985-11 | RES-CHIP    | 470K 5% 1/16W   |          |              | < SWITCH >                            |                      |
| R825     | 1-218-989-11 | RES-CHIP    | 1M 5% 1/16W     | S801     | 1-786-313-11 | SWITCH, PUSH (1 KEY) (HALF LOCK)      |                      |
| R826     | 1-218-957-11 | RES-CHIP    | 2.2K 5% 1/16W   | S803     | 1-762-805-21 | SWITCH, PUSH (1 KEY)                  |                      |
| R827     | 1-218-961-11 | RES-CHIP    | 4.7K 5% 1/16W   |          |              |                                       | (OPEN/CLOSE DETECT)  |
| R828     | 1-218-933-11 | RES-CHIP    | 22 5% 1/16W     | S806     | 1-786-437-11 | SWITCH, PUSH (2 KEY) (PROTECT DETECT) |                      |
|          |              |             |                 | S807     | 1-762-078-11 | SWITCH, SLIDE (HOLD)                  |                      |
| R829     | 1-218-933-11 | RES-CHIP    | 22 5% 1/16W     |          |              |                                       |                      |
| R832     | 1-218-990-11 | SHORT CHIP  | 0               |          |              | < THERMISTOR >                        |                      |
| R834     | 1-208-699-11 | METAL CHIP  | 4.7K 0.5% 1/16W | TH951    | 1-804-616-21 | THERMISTOR, POSITIVE                  |                      |
| R835     | 1-208-699-11 | METAL CHIP  | 4.7K 0.5% 1/16W |          |              |                                       |                      |
| R837     | 1-218-973-11 | RES-CHIP    | 47K 5% 1/16W    |          |              | < VARISTOR >                          |                      |
|          |              |             |                 |          |              |                                       |                      |
| R839     | 1-218-990-11 | SHORT CHIP  | 0               | VDR901   | 1-801-864-21 | VARISTOR, CHIP (1608)                 |                      |
| R843     | 1-218-990-11 | SHORT CHIP  | 0               |          |              |                                       |                      |
| R844     | 1-218-990-11 | SHORT CHIP  | 0               |          |              | < VIBRATOR >                          |                      |
| R845     | 1-218-977-11 | RES-CHIP    | 100K 5% 1/16W   | X802     | 1-795-727-21 | VIBRATOR, CERAMIC (48MHz)             |                      |
| R846     | 1-218-977-11 | RES-CHIP    | 100K 5% 1/16W   | X803     | 1-795-778-11 | VIBRATOR, CRYSTAL (22.5792MHz)        |                      |
|          |              |             |                 |          |              | *****                                 |                      |
| R847     | 1-218-981-11 | RES-CHIP    | 220K 5% 1/16W   |          |              | MISCELLANEOUS                         |                      |
| R850     | 1-218-990-11 | SHORT CHIP  | 0               |          |              | *****                                 |                      |
| R851     | 1-218-990-11 | SHORT CHIP  | 0               | 6        | 1-805-273-11 | LCD MODULE                            |                      |
| R855     | 1-218-990-11 | SHORT CHIP  | 0               | △309     | X-3382-953-1 | OP SERVICE ASSY (LCX-5R)              |                      |
| R857     | 1-218-989-11 | RES-CHIP    | 1M 5% 1/16W     | M701     | 8-835-744-21 | MOTOR, DC SSM18B/C-NP (SPINDLE)       |                      |
|          |              |             |                 | M702     | 1-763-727-11 | MOTOR, DC (SLED)                      |                      |
| R858     | 1-218-990-11 | SHORT CHIP  | 0               | M703     | 1-763-400-21 | MOTOR, DC (OVER WRITE HEAD UP/DOWN)   |                      |
| R860     | 1-216-864-11 | SHORT CHIP  | 0               |          |              | *****                                 |                      |
| R861     | 1-218-990-11 | SHORT CHIP  | 0               |          |              |                                       |                      |
| R862     | 1-218-990-11 | SHORT CHIP  | 0               |          |              |                                       |                      |
| R863     | 1-218-990-11 | SHORT CHIP  | 0               |          |              |                                       |                      |
|          |              |             |                 |          |              |                                       |                      |
| R864     | 1-218-961-11 | RES-CHIP    | 4.7K 5% 1/16W   |          |              |                                       |                      |
| R865     | 1-218-965-11 | RES-CHIP    | 10K 5% 1/16W    |          |              |                                       |                      |
| R866     | 1-218-965-11 | RES-CHIP    | 10K 5% 1/16W    |          |              |                                       |                      |
| R868     | 1-218-937-11 | RES-CHIP    | 47 5% 1/16W     |          |              |                                       |                      |
| R869     | 1-218-941-11 | RES-CHIP    | 100 5% 1/16W    |          |              |                                       |                      |
|          |              |             |                 |          |              |                                       |                      |
| R871     | 1-218-957-11 | RES-CHIP    | 2.2K 5% 1/16W   |          |              |                                       |                      |
| R872     | 1-218-953-11 | RES-CHIP    | 1K 5% 1/16W     |          |              |                                       |                      |
| R873     | 1-218-985-11 | RES-CHIP    | 470K 5% 1/16W   |          |              |                                       |                      |
| R874     | 1-218-985-11 | RES-CHIP    | 470K 5% 1/16W   |          |              |                                       |                      |
| R901     | 1-218-989-11 | RES-CHIP    | 1M 5% 1/16W     |          |              |                                       |                      |
|          |              |             |                 |          |              |                                       |                      |
| R902     | 1-218-989-11 | RES-CHIP    | 1M 5% 1/16W     |          |              |                                       |                      |
| R903     | 1-218-957-11 | RES-CHIP    | 2.2K 5% 1/16W   |          |              |                                       |                      |
| R904     | 1-218-957-11 | RES-CHIP    | 2.2K 5% 1/16W   |          |              |                                       |                      |

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

| Ref. No. | Part No.     | Description  | Remark |
|----------|--------------|--|--------|
|          |              | ACCESSORIES  |        |
|          |              | *****  |        |
| △        | 1-477-563-41 | ADAPTOR, AC (AC-ES305K) (KR)   |        |
| △        | 1-477-565-41 | ADAPTOR, AC (AC-ES305K) (AEP, EE)  |        |
| △        | 1-477-566-41 | ADAPTOR, AC (AC-ES305K) (UK, HK)   |        |
| △        | 1-477-568-31 | ADAPTOR, AC (AC-ES305K) (AUS)  |        |
| △        | 1-477-570-31 | ADAPTOR, AC (AC-ES305K) (E)  |        |
| △        | 1-477-737-11 | ADAPTOR, AC (AC-ET305K) (CND)  |        |
|          | 1-542-514-12 | HEADPHONE (HP-M070)  |        |
|          | 1-823-519-11 | CORD, CONNECTION (DEDICATED USB CABLE)<br>(CND, AEP, UK, EE)             |        |
|          | 1-823-519-31 | CORD, CONNECTION (DEDICATED USB CABLE)<br>(E, AUS, HK, KR)               |        |
|          | 3-257-259-12 | MANUAL, INSTRUCTION (ENGLISH)  |        |
|          | 3-257-259-21 | MANUAL, INSTRUCTION (FRENCH) (CND, AEP)                                  |        |
|          | 3-257-259-31 | MANUAL, INSTRUCTION (GERMAN) (AEP)                                       |        |
|          | 3-257-259-42 | MANUAL, INSTRUCTION (SPANISH) (AEP)                                      |        |
|          | 3-257-259-51 | MANUAL, INSTRUCTION (ITALIAN) (AEP)                                      |        |
|          | 3-257-259-61 | MANUAL, INSTRUCTION (RUSSIAN) (EE)                                       |        |
|          | 3-257-259-71 | MANUAL, INSTRUCTION (HUNGARIAN) (EE)                                     |        |
|          | 3-257-259-81 | MANUAL, INSTRUCTION (POLISH) (EE)  |        |
|          | 3-257-259-91 | MANUAL, INSTRUCTION (CZECH) (EE)   |        |
|          | 3-257-334-11 | MANUAL, INSTRUCTION<br>(NetMD Simple Burner v1.2) (ENGLISH)              |        |
|          | 3-257-334-22 | MANUAL, INSTRUCTION<br>(NetMD Simple Burner v1.2) (FRENCH)<br>(CND, AEP) |        |
|          | 3-257-334-32 | MANUAL, INSTRUCTION<br>(NetMD Simple Burner v1.2) (GERMAN) (AEP)         |        |
|          | 3-257-334-42 | MANUAL, INSTRUCTION<br>(NetMD Simple Burner v1.2) (SPANISH) (AEP)        |        |
|          | 3-257-334-52 | MANUAL, INSTRUCTION<br>(NetMD Simple Burner v1.2) (ITALIAN) (AEP)        |        |
|          | 3-257-334-61 | MANUAL, INSTRUCTION<br>(NetMD Simple Burner v1.2) (RUSSIAN) (EE)         |        |
|          | 3-257-334-71 | MANUAL, INSTRUCTION<br>(NetMD Simple Burner v1.2) (HUNGARIAN)<br>(EE)    |        |
|          | 3-257-334-81 | MANUAL, INSTRUCTION<br>(NetMD Simple Burner v1.2) (POLISH) (EE)          |        |
|          | 3-257-334-91 | MANUAL, INSTRUCTION<br>(NetMD Simple Burner v1.2) (CZECH) (EE)           |        |
|          | X-3384-006-1 | CD-ROM (APPLICATION) ASSY (AEP, UK, EE)                                  |        |
|          | X-3384-007-1 | CD-ROM (APPLICATION) ASSY (CND)  |        |
|          | X-3384-084-1 | CD-ROM (APPLICATION) ASSY<br>(E, HK, KR, AUS)                            |        |

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MEMO

## REVISION HISTORY

Clicking the version allows you to jump to the revised page.

Also, clicking the version at the upper right on the revised page allows you to jump to the next revised page.

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